

Manufacturers Record

Reg. U. S. Patent Office



AUGUST 1935

BALTIMORE, MD.

UNDER THE NEW DEAL

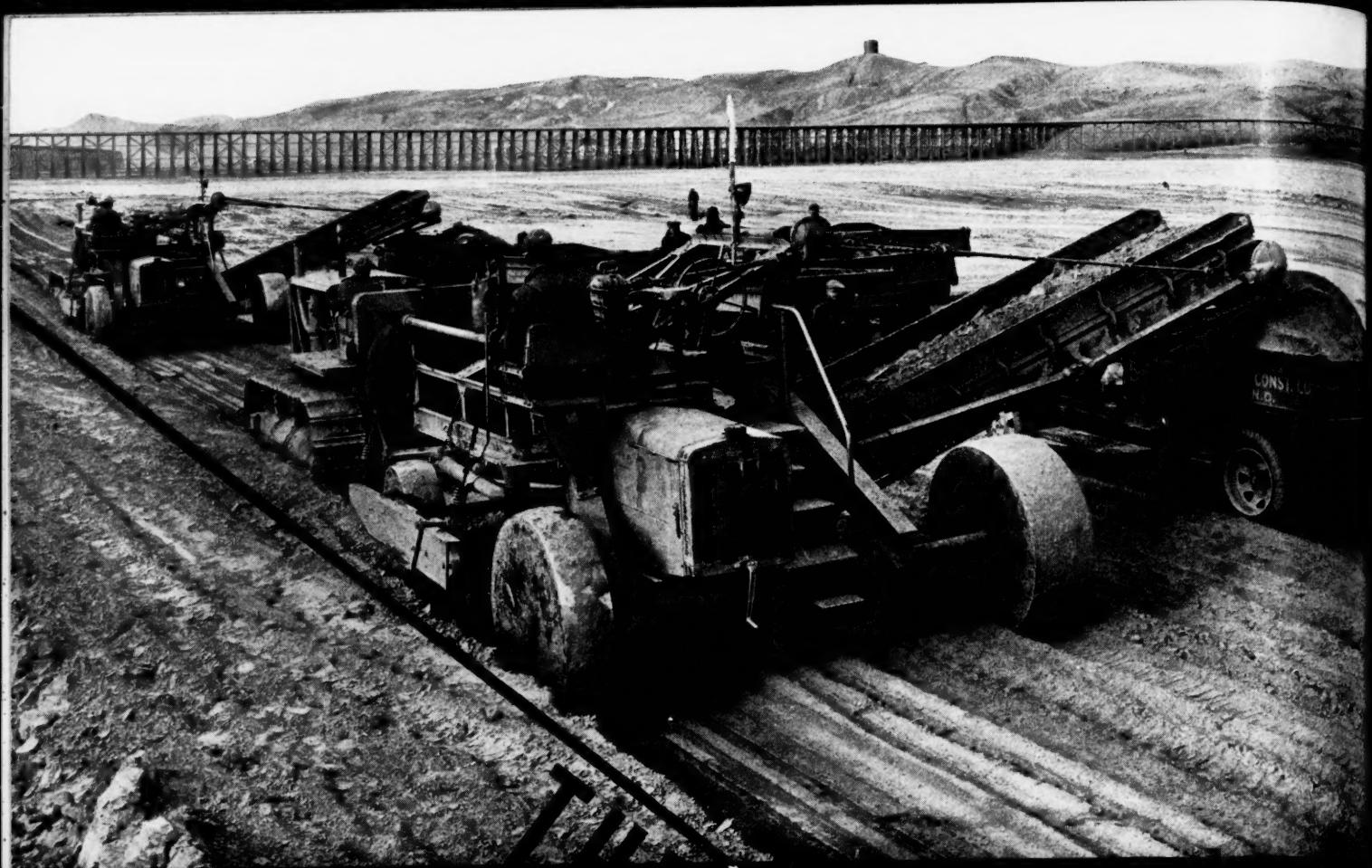
For recovery we stigmatize and hamstring those
who create employment.

For unemployment we plan to share wealth and
cripple industry, thereby increasing idleness.

For crop reduction we plan new productive areas,
and buy more from abroad.

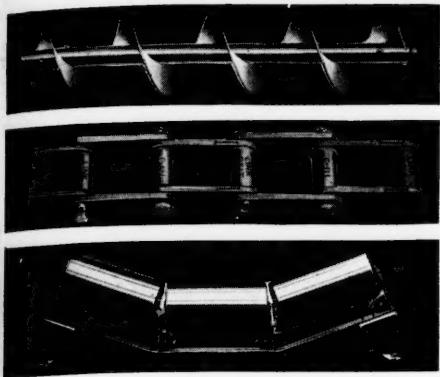
For restoring confidence we urge legislation regard-
less of reasonable doubts of its legality, and
expect business to be assured of the future.

Of such is "the more abundant life."



CONSTRU
H.D.

A U



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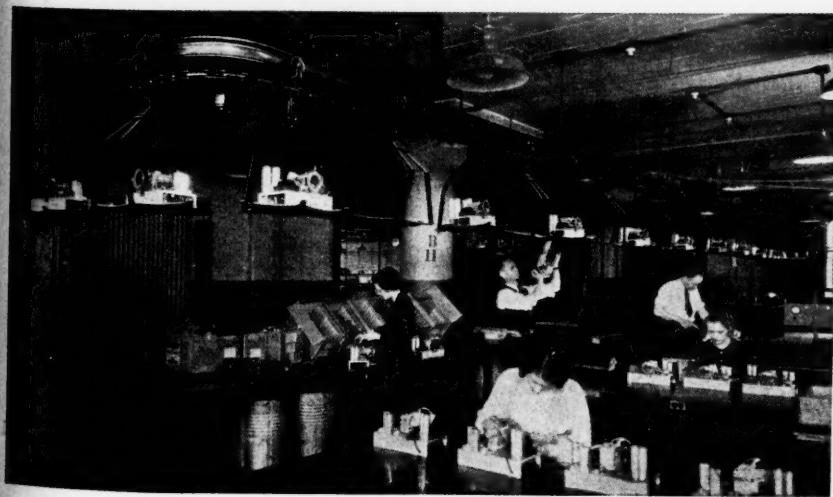
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Its line includes every known type of elevating and conveying equipment for handling all materials. Send for catalogs.

5358

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AUGUST NINETEEN THIRTY-FIVE

New York City laid this cast iron pipe the year Horace Greeley founded the N. Y. Tribune. It is still in use.

Water Works Improvements Are Sound Relief Projects

1. Water supply improvements constructed with cast iron pipe are self-liquidating.
2. Approximately 75% of the cost of manufacturing, distributing and installing cast iron pipe, including raw materials, goes directly to workmen.
3. Manufacturing and installing one mile of 6-inch cast iron pipe gives approximately 1000 man-days of employment.
4. For every 100 tons of cast iron pipe manufactured, the railroads handle approximately 1000 tons of raw materials.

UNDER a New York City pavement at the intersection of East Broadway and Montgomery Street lies a cast iron water main that was laid in 1841. A section exposed to cut in a valve, at the time the above photograph was taken, proved to be in excellent condition, good for generations to come. Some of New York's 4500 miles of cast iron mains are more than a century old.

In evaluating bids, engineers rate the useful life of cast iron pipe at 100 years, far beyond that of any other pipe practicable for underground mains. The long life of cast iron pipe is attested to by mains still in use here and abroad after one, two and nearly three centuries of service. Cast iron

has long been the standard material for water and gas mains.

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Municipal officials may never again be able to modernize, enlarge or extend water distribution systems, or build new supply lines, at the low costs and favorable financial terms existing today.

For further information, address The Cast Iron Pipe Research Association, Thos. F. Wolfe, Research Engineer, 1015 Peoples Gas Building, Chicago, Ill.

CAST IRON PIPE

METHODS OF EVALUATING BIDS NOW IN USE BY ENGINEERS



RATE THE USEFUL LIFE OF CAST IRON PIPE AT 100 YEARS

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AUGUST
1935



An Alabama Chemical Plant

Volume CIV No. 8

MANUFACTURERS RECORD

Devoted to the Upbuilding of the
Nation Through the Development
of the South and Southwest as the
Nation's Greatest Material Asset

Published Monthly

by the

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**PUBLISHERS DAILY CONSTRUCTION BULLETIN AND
BLUE BOOK OF SOUTHERN PROGRESS**

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AUGUST NINETEEN THIRTY-FIVE

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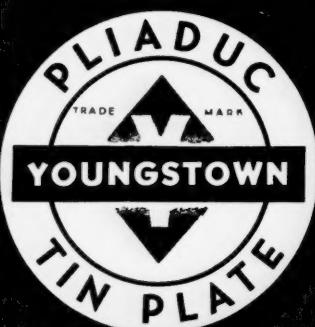
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TIN PLATE



YOUNGSTOWN COKE TIN PLATE has been known for many years as a standard of high quality--Produced with the greatest care from steel made in our plants--YOUNGSTOWN "COKES" have achieved wide acceptance for a great many Tin Plate uses.



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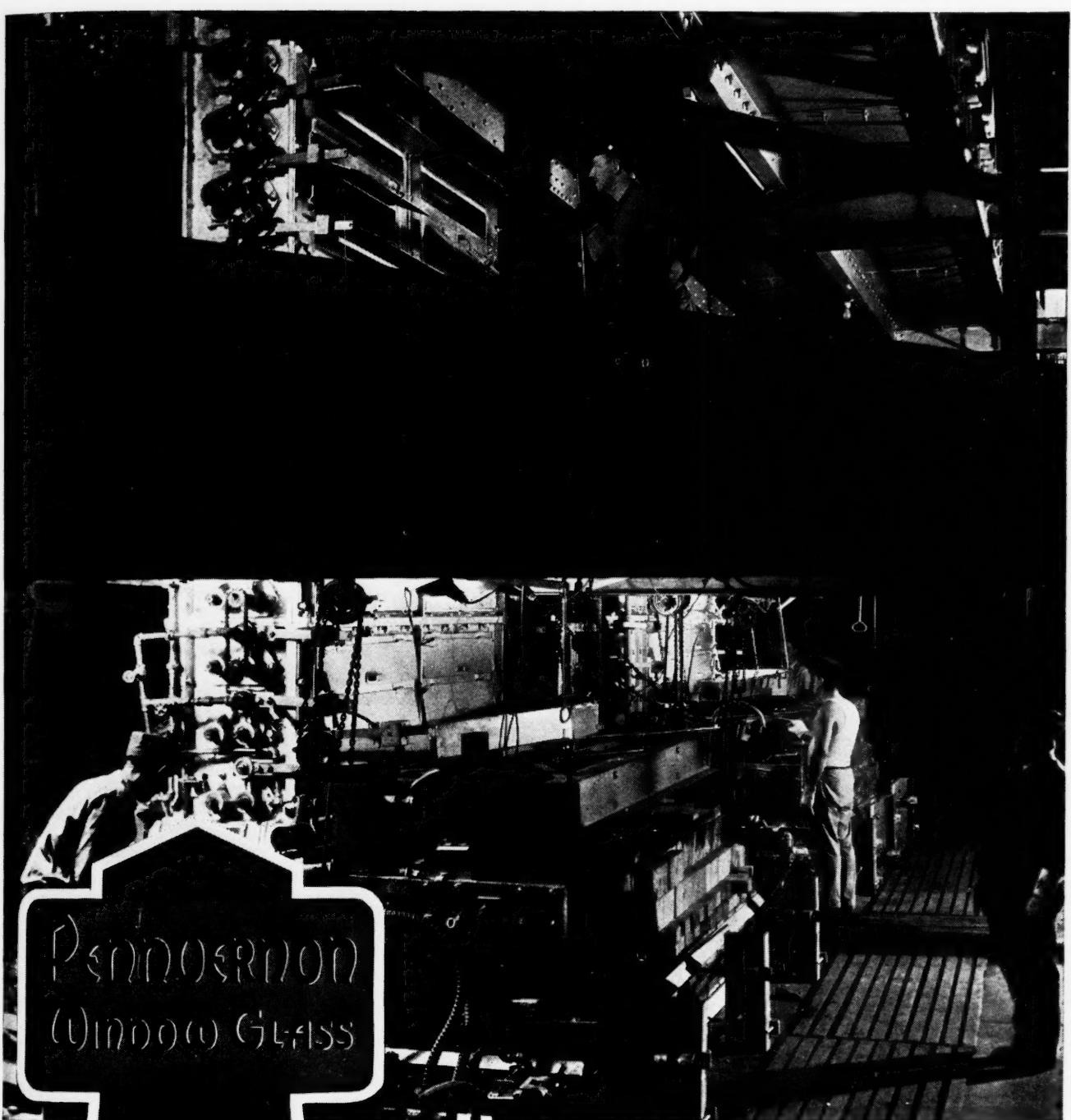
THE YOUNGSTOWN SHEET AND TUBE COMPANY

GENERAL OFFICES - - - YOUNGSTOWN, OHIO

MANUFACTURERS RECORD FOR



Use "Pennvernon"...not just "window glass"



Photograph by Johnston & Johnston



UP FROM THE DEPTHS of the melting tank below, this specially-designed Pennvernon drawing machine draws the molten glass, forms it into the brilliant, clear sheets which have made the name "Pennvernon" synonymous with high quality. Skilful Pennvernon Craftsmen tend the machine carefully and faithfully, day and night.

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**PITTSBURGH
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2136 Grant Building, Pittsburgh, Pa.

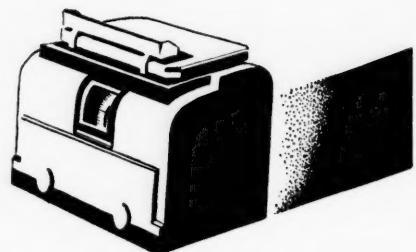
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RE-DESIGN...

a recipe



FOR RESULTS

Highly significant is this frequently recurring statement in the sales literature of successful manufacturers:

"Not only have we improved the principle upon which our product operates, but also we have improved its efficiency, its convenience, and its appearance by making many of the parts of Aluminum."



That is a recipe for re-design which recognizes fundamentals.

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Manufacturers, who are alert mer-

chandisers, meet that demand by using more and more Aluminum. Nature made Aluminum light, and research has made it strong.

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We invite you to take advantage of the fundamentals of Aluminum by asking for just this kind of help. ALUMINUM COMPANY OF AMERICA, Gulf Building, Pittsburgh, Pa.



forward via fundamentals



Experience of 18 States shows concrete saves \$114 to \$469 per year per mile surface maintenance

NOW you can settle questions about surface maintenance costs with *actual figures*—compiled from *all* states that publish comparable data.

Official records covering more than one hundred thousand miles of pavement for periods up to 14 years reveal these averages:

Type of Pavement	Total Mileage	Average Surface Maintenance Cost per Mile per Year
Concrete	40,388.4	\$105.74
A	998.3	220.26
B	1,692.3	244.34
C	2,309.1	281.80
D	16,441.2	315.09
E	2,356.8	322.57
F	1,985.9	345.47
G	18,336.9	369.38
H	8,206.7	382.97
I	2,446.4	438.65
J	5,118.8	575.51

More detailed data, by states, may be had by

writing for report entitled "Road Maintenance Costs as told by Available State Highway Records."

And the Public Wants Concrete

Concrete is demanded by motorists because it is swift but safe, non-skid, easily visible at night, most pleasant to drive on . . . and because it saves money in gas, oil, tires and car repairs.

*Concrete is the standard by which
all roads are judged*

PORLTAND CEMENT ASSOCIATION

Room 128, 33 W. Grand Ave., Chicago

Please send me "Road Maintenance Costs as told by Available State Highway Records."

Name.....

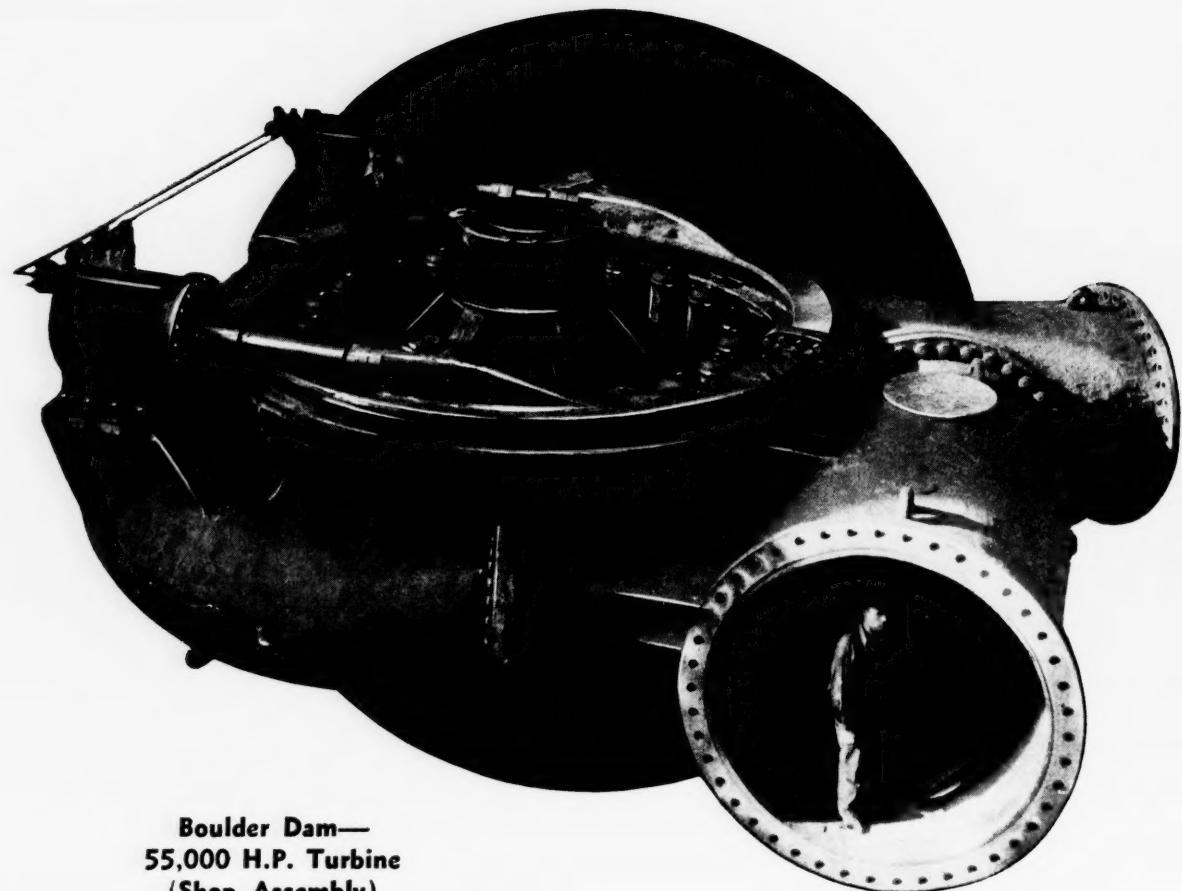
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Boulder Dam—
55,000 H.P. Turbine
(Shop Assembly)

Write for our latest catalog

"WATER POWER EQUIPMENT"

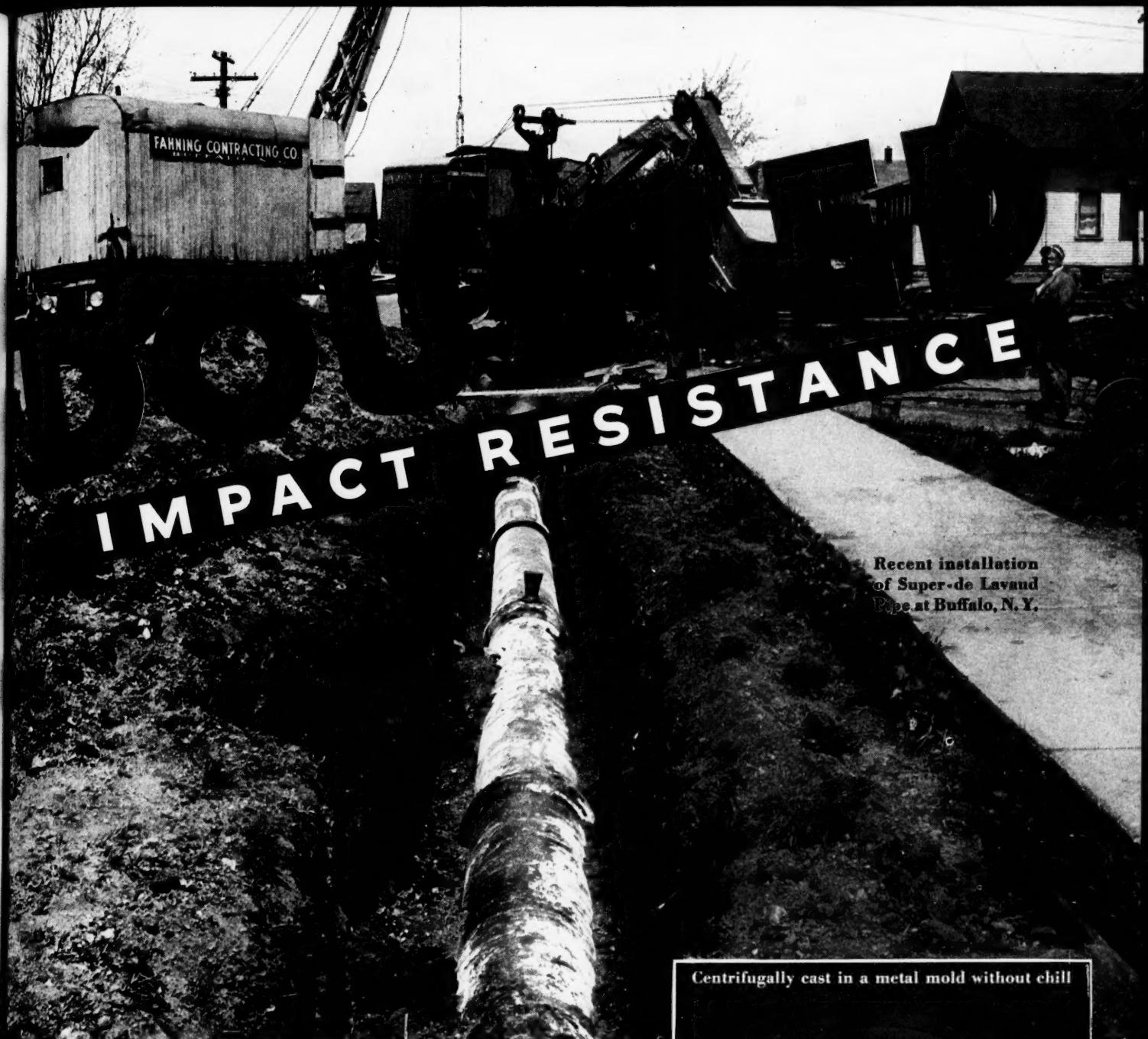
**NEWPORT NEWS
SHIPBUILDING AND DRY DOCK COMPANY**
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10

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J.S. SUPER-de LAVAUD PIPE

CAST WITHOUT CHILL IN A METAL MOLD

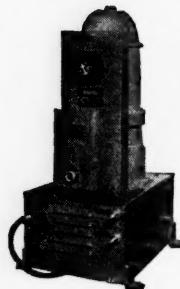
UNITED STATES PIPE AND FOUNDRY CO., General Office: BURLINGTON, N. J.

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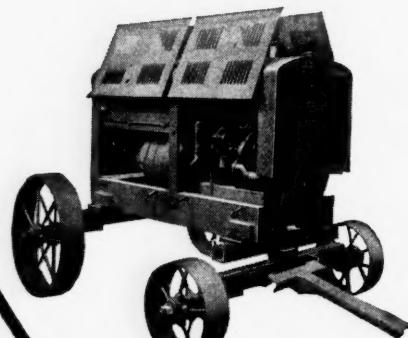
"Shield-Arc" Welders
A. C. or D. C. Motor Drive
200 to 600 amps.



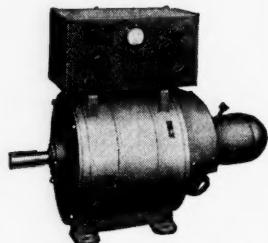
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From Lincoln has come all the important improvements in arc welding equipment — thus users of the electric arc have learned to depend on Lincoln as the *one* reliable source for all their welding needs. Lincoln's unequalled experience in the application of the arc process, plus continual research for more than a quarter century, has made it possible to offer not only the latest developments in equipment but also an engineering service of a most practical nature.

To be sure you get all the advantages arc welding can offer you, consult The Lincoln Electric Company, Cleveland, Ohio. Largest Manufacturers of Arc Welding Equipment in the World.

W-150



POP "Lincoln is just as interested in us as before we bought their equipment. Here's their suggestion for redesign which will cut our costs 17%."

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LINCOLN SUPPLIES

include electrode holders, cable, face and head shields, lens and cover glass, protective clothing, cleaning tools, tables and booths, and manipulators.

"GULF GIVES US THE *Best* LUBRICATION PER DOLLAR"

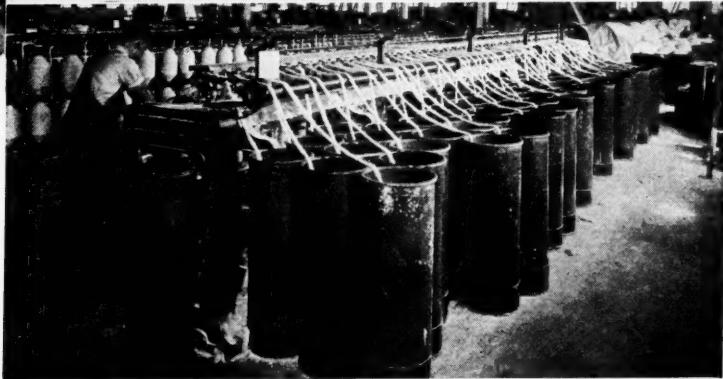
*Says: INGRAM MFG. CO.,
NASHVILLE, TENN.*



Left—20,000 spindles are kept in efficient operation in this spindle room with the right grades of Gulf quality lubricants in service.



Above is the plant of the Ingram Manufacturing Co. of Nashville, Tenn., where Gulf lubricants are keeping all machinery in efficient, low-cost operation. This well-known plant specializes in the manufacture of Merino yarn.

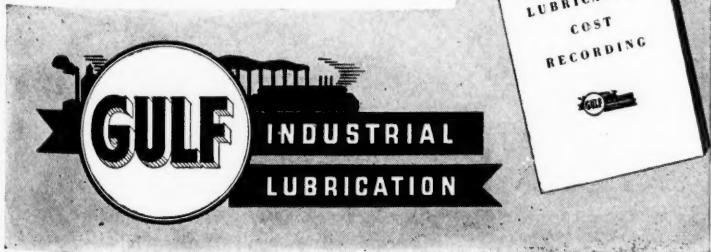


Above is a view of the card room in the Ingram Manufacturing Co. plant, showing the cotton in a preparatory stage in the manufacture of the yarn.

*Ultimate Economies in
Maintenance Invariably
Accompany the Use of
GULF LUBRICANTS*

When a textile mill operator says Gulf gives him the *best* lubrication per dollar, that statement implies just one thing. It means that he gets the *lowest ultimate costs for maintenance, power and lubricants* when Gulf products are used.

This brief treatise has been prepared to assist textile mill operators in reducing their maintenance and lubrication costs. Your copy is ready.



A trained Gulf engineer will be glad to assist you in improving the lubrication and operation of your equipment. Why not set a definite time to discuss this matter in detail with a Gulf representative?

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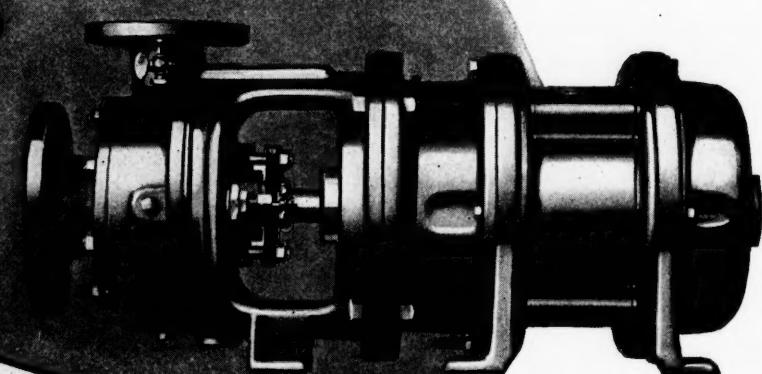
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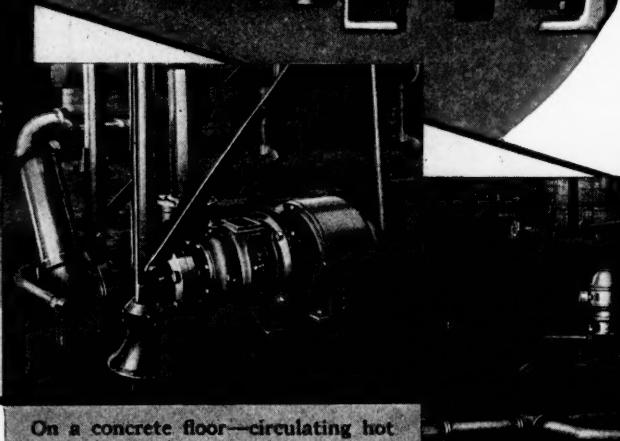
A RELIABLE PUMP FOR INDUSTRIAL PLANTS

The Cameron

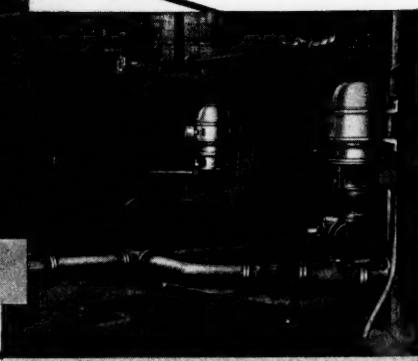
MOTORPUMP



Side operation—handling oil in a heat-treating plant.



On a concrete floor—circulating hot water in a dairy.



Operating vertically—pumping caustic solution in a chemical plant.

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The MOTORPUMPS can be operated in any position—on the floor, on the wall, on a tank, on a column, or on the ceiling. No special foundation is required.

STURDY CONSTRUCTION—

The compact design makes the unit extremely rigid and strong. This strength gives added years of heavy duty operation.

HIGH EFFICIENCY—

Liquid entering the suction enters directly into the eye of the impeller, thus increasing the efficiency.

STOCK SHIPMENT—

MOTORPUMPS are carried in stock by Ingersoll-Rand branches and by a large number of dealers. The proper pump for the job can be secured on short notice.

MODERN industrial plants require dependable pumps. The breakdown of a pumping unit, or its shutdown for overhauling, may paralyze an important process. The MOTORPUMP offers protection against such losses.

It is built in sizes from $\frac{1}{4}$ to 50 hp., and capacities from 5 to 1000 gallons per minute against heads up to more than 200 feet. Open, splash-proof, totally-enclosed, or explosion-proof motors are available for all usual current conditions.

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• Manufacturers Record •

WHAT IS AHEAD?

CONGRESS and the country should have a rest. Efforts to change America's constitutional government, which are still being driven to the front ahead of recovery, are wearing out the patience and health of legislators who want to go home, and are so disturbing to business that long time commitments are not being made, and the unemployment total keeps above the figures of a year ago.

The prospect of a prolonged session of Congress, with the menace of "must" legislation to be jammed through, is not a pleasing one.

Admitting the temporary benefits to farmers from the hand-out of taxpayers' money; admitting the improvement in retail sales from the same source and the spotty improvement in other businesses, the fact is undeniable that this improvement will fall far short of paying the enormous resulting tax bill. If kept up, the course being followed of a socialistic state doing it all can have but one end—the collapse of national credit.

The stubborn effort to railroad "must" legislation, while its very constitutionality is in question, is in itself enough to induce fear and misgiving in the public mind. To undertake in addition a tax program that should require careful calculation and unhurried debate, and try to rush it through, shows clearly a condition of mind which is careless of consequences and costly mistakes.

This is reflected further in the advice not to permit doubts, "however reasonable," concerning constitutionality to stand in the way of the adoption of other legislation.

President Taft in a veto message in 1913, said:

"But it is said that this is a question with which the executive or members of Congress should not burden themselves to consider or decide. It is said that it should be left to the Supreme Court to say whether this proposed act violates the Constitution. I dissent utterly from this proposition. The oath that the Chief Executive takes, and which each member of Congress takes, does not bind him any less sacredly to observe the Constitution than the oaths which justices of the Supreme Court take. It is questionable whether the doubtful constitutionality of a bill ought not to furnish a greater reason for voting against the bill, or vetoing it, than for the court to hold it invalid."

"The Court will only declare a law invalid where its unconstitutionality is clear, while the lawmaker may very well hesitate to vote for a bill of doubtful constitutionality because of the wisdom of keeping clearly within the fundamental law.

"The custom of legislators and executives having any legislative function, to remit to the courts entire and ultimate responsibility as to the constitutionality of the measures which they take part in passing is an abuse which tends to put the Court constantly in opposition to the Legislature and Executive, and, indeed, to the popular supporters of unconstitutional laws.

"If, however, the legislators and the executive had attempted to do their duty, this burden of popular disapproval would have been lifted from the courts, or at least considerably lessened."

As we said in these columns some months ago, "America is being changed to a Socialistic State in spite of the fact the country did not knowingly vote for it."

The New Deal administration, which seldom refers to itself as "Democratic" has followed more closely the 1932 Socialistic party platform than the platform of the Democratic party upon which it was swept into office.

Bigness in business, whether corporation or individual, has become a badge of dishonor. The objective is for government to control, direct and operate.

That is what the Wheeler-Rayburn bill means if it means anything besides destruction. The AAA may benefit the farmers at other people's expense, but at a blighting eventual cost to the farmer. Is it conceivable that the farmers of America understand completely what is being proposed?

In considering most of the measures passed and the bills that are pending, what is plainly intended is government control of the actions of every individual and every business.

We are being hurried on in a mood of "damn the torpedoes, full speed ahead." Unfortunately, the final results are likely to be as they are so far proving, entirely disastrous. The right of the individual to expect the reward due his energy and his brains, is not part of the present program which, if we don't change it, will put this country as big and as great as it is on the rocks.

When will "relief" cease? Four billion eight hundred million dollars were to stop a big part of it,

but that hope is out of the window. There has been no definite plan and there is none yet. Discussions, however, are reported to have already begun in the inner circle as to what the relief program shall be, starting next July.

Unless the heavy industries, and it is with them that employment lags, are a great deal further along in recovery than now, the relief bill indefinitely will continue a staggering burden.

For this country to develop, as it has every right to expect from its resources and the character of its people, there must be faith in the integrity of government, faith in the continuance of individual liberty and in the God-given opportunity presented every man to use his talents and his labor as he sees fit, so long as he does not infringe upon the rights of others. It is a sorry day when these things are brought into question. That they are in very grave question is a matter of common knowledge. A great statesman once said that the liberty which Americans prize and for which their forefathers fought will be curtailed in proportion to the power we give those whom we elect to office.

There is no reason for mincing words about it. If things go on as they are now, we are facing the destruction of individual liberty as Americans know it. And the cost in money and loss of character of all that is being forced upon us is incalculable. That fact should be driven home to every American. Are we aware of what we are giving up?

BROADEN COTTON USES

INTERESTING experiments for the use of cotton in highway construction have been under way for some time. The *Atlanta Constitution* calls attention to the fabric known as "Osnaburg" used to reinforce tar and asphalt paving, just as steel wire is used in concrete mixtures. It is estimated that two to three million bales of cotton could be employed annually in such work.

The new paving process is a result of experiments by Chas. H. Morefield, engineer of the South Carolina State Highway department, and the advantages claimed for it include adequate draining of the interior of the highway which keeps the foundation dry and avoids disintegration of the road bed.

Extraordinary conditions do not create or enlarge constitutional power. The Constitution established a National Government with powers deemed to be adequate as they have proved to be both in war and peace; but these powers of the National Government are limited by the Constitutional grants. Those who act under these grants are not at liberty to transcend the imposed limits because they believe that more or different power is necessary. Such assertions of extra-constitutional authority were anticipated and precluded by the explicit terms of the Tenth Amendment.

—from recent Supreme Court decision.

SOUTHERN PROGRESS

THE 1935 edition of the Blue Book of Southern Progress, which presents factual data on the advancement made by this section during the past year, has attracted wide attention.

The *Charlotte Observer*, in an editorial headed, "The Eloquence of the Blue Book," writes:

"The MANUFACTURERS RECORD'S BLUE BOOK of Southern Progress for 1935 continues its former stride of boosting the industrial supremacy of the South and presents a bewildering array of statistics to indicate what extent business and industry in the Southern tier of States are picking themselves up from the lethargies of the period of depression and beginning to move out. It is an invaluable record of facts which this organ annually presents to its clientele throughout America."

Referring to the information available in the Blue Book of Southern Progress in an editorial entitled, "South Still Advancing", the *Nashville Banner* says:

"Prominent Eastern financial writers believe that the South is on the eve of another great period of advance. One of the strong factors that will contribute to that condition is the fact that capital in the North and East, impressed with the remarkable reserve powers displayed by the South during the depression, and seeking safe as well as profitable investment, will be inclined more than ever to turn to the South."

The *Montgomery Advertiser* says the Blue Book of Southern Progress "presents a mass of statistics which can lead to but one conclusion: The South is definitely on the up-grade."

The *Florida Times-Union* calls the Blue Book "a valued compendium of information, and well understood as dependable, offering facts so arranged as to be easily discovered."

Private interests in diversified lines from many parts of the country have expressed appreciation of the valuable information published. Among them may be cited the comments of the R. D. Wood Company, engineers, iron founders, machinists, of Philadelphia: "The MANUFACTURERS RECORD'S BLUE Book finds a permanent place in our files as a reference book and is always retained until the next year's copy comes around." The E. I. duPont de Nemours and Company, "keep a copy in our office for reference and one is turned over to our Southern manager." G. E. Reynolds, general manager of the Reynolds Bros. Lumber Co., Albany, Ga., says "it contains such information as is needed from day to day and there will hardly be a week in the year that I shall not refer to it." Richard A. Froehlinger, treasurer The Arundel Corporation, Baltimore, commenting on the fact that the information is of interest to members of the organization, says "Our first trip through the statistics certainly confirms the remarks about the showing in the South." Benjamin O. Sprague, president, Savannah Sugar Refining Corporation, writes that he has "distributed them to the various officers of the company." Frank W. Ziegler, of the Nashville Chamber of Commerce—"This BLUE Book will be of invaluable help to us throughout the year."

BUSINESS IMPROVEMENT

THAT we have moved forward since the low point of the depression in 1932, despite government interference and unworkable panaceas, is evident. Business and manufacturing indices show that gains have been made.

The summer volume of trade and activity throughout the country has been encouraging and better business is expected for the early fall months. Especially is this so in the Southern States. As one national commentator says, "the ingredients for the prospects of improved business in the fall are to be found in the growing crops of the country rather than in the vague planning by politicians in Washington."

It is estimated that the farm value of this year's agricultural output will show an increase of one billion dollars over 1934, when the gross value was \$7,869,000,000. As the Southern States produce more than 43 per cent of the country's crops, this section is expected to furnish a large part of the buying power of the country from this new wealth created from the soil.

Fertilizer sales in the South during June were 31 per cent above June 1934 and the largest in any June since 1931. The total increase for the year is 12 per cent.

General business in some sections of the South has been the best in two years, with greatly increased trade expected this fall.

Continued gain in private construction is noted throughout the South with substantial industrial development under way. The total value of building and engineering contracts awarded for the first seven months of 1935 was \$276,000,000, and of this total more than \$77,000,000 was invested in privately owned industrial plants and business buildings since the first of the year.

The largest registration of retail furniture buyers in several years was reported at the recent semi-annual furniture show held at High Point, N. C., the South's furniture market. The Southern Furniture Exposition building in that city, with its 10 floors of available space was taken for exhibits.

Harry E. Blythe, vice president of the Goodyear Tire & Rubber Co., Akron, O., on a recent visit to the Charlotte territory, stated he found "business conditions considerably improved throughout the country and the Southeast as one of the best sections. Business men everywhere are in a more optimistic frame of mind."

The substantial gain in business during recent weeks has been widely diffused among many lines. Increased residential building is recorded this year, greater automobile production, greater activity in the steel industry in recent weeks, improvement in the machine tool industry and continued gain in electrical output, with the Southern States showing an average increase of about 7 per cent each week over corresponding weeks of last year. Production to date was larger than for any year since 1930.

Industrial activities throughout the country for the

first six months of this year were greater than for the corresponding period last year, as cited by the National Industrial Conference Board indices of production. Among the increases may be noted:

<i>Increase</i>	<i>Per Cent</i>
Automobiles	31.1
Steel Ingots	1.6
Petroleum	5.8
Bituminous Coal	3.7
Machine Tool Orders	46.5

Department store sales increased 4 per cent. Retail prices advanced measurably and corporate security prices also advanced during the first half of the year. New capital flotations during the first half of 1935, exclusive of U. S. Government issues, aggregated \$2,020,000,000, and this is said to be the heaviest volume of financing done since the first six months of 1931. New financing and refunding issues for July amounted to \$534,000,000, the highest monthly total since March, 1931.

FOREIGN COMPETITION

THE theory that we must buy more from foreign countries in order to sell them more is not working out in practice. We are shipping abroad 40 per cent less cotton than a year ago. There is a marked decline in the volume of our total exports. With higher prices prevailing, the value of our exports is about \$12,000,000 below the first six months of last year, but we increased our imports by about \$130,000,000. Included in this increase are purchases of grain, meat and other foodstuffs due partly to the drought of last year, controlled production and higher domestic prices.

As the *Baltimore Sun* says—"by restricting production and by artificially boosting domestic prices above the world level through crop loans, price fixing and the like, the AAA has invited foreign competition in the domestic farm market and impaired foreign markets for our agricultural produce."

Also, it might be mentioned that recent tariff agreements have worked against American manufacturers and American labor.

Importations of foreign cement have reached a point that are seriously disturbing to domestic producers and curtailing employment in American mills. So far this year imports have risen rapidly, and for the first five months were nearly 50 per cent above a year ago. The American cement industry's operations in the meanwhile, for the year ending in June, were only 28 per cent of capacity. With building at a low ebb, the situation is aggravated by competition with cheap foreign labor, and this has been added to by recent reciprocal agreements.

Another basic industry, steel, is facing this competition to a greater degree. Steel imports are 65 per cent above last year which are estimated to have deprived 3900 American workers of full-time jobs. Only in recent weeks has the domestic steel industry been able to operate as high as 44 per cent of capacity.

RIP VAN WINKLE, WAKE UP!

By

J. Howard Pew,
President, Sun Oil Company

FROM its beginning the present Administration at Washington has displayed a persistently growing radicalism in its attitudes and aims. In recent months developments along this line have been rapid. Following the Supreme Court's decision on the National Industrial Recovery Act, and as if in defiance of Court, Constitution and all that is basic in the American system, the Administration began unfolding programs so extreme as to suggest a purpose of social and economic revolution. The country has not been told how far it is proposed to press along these lines, but measures are urged which could not possibly be approved under the Constitution as now written; measures which would destroy the balance in our system of dual sovereignties, would arrogate powers to which the Federal establishment has never pretended; would strip states and people of reserved powers; and which look directly toward the impressment of business, property and enterprise under Federal domination.

Socialization of Property

Such a program would force all business and industry into monopolistic concentrations, on pretense of Government regulation; ending in the socialization of property; the confiscation and destruction of wealth under disguise of "redistributing" it; economic dictatorship, with competition outlawed and monopoly enthroned. Against this squeezing business and industry into a system of Government monopolies, there is need to sound warning. Such monopolies have been the rule of economic organization throughout the ages, down to very recent times. In the comparatively brief period since men have been emancipated from them, and allowed the privilege of unhampered private enterprise, about all of our progress has been made in free institutions, democratic government and higher standards of living. Whoever desires that progress to continue must view with concern the present tendencies in our National Administration.

Efficacy of Free Competition

It has been said that the automotive group of industries pulled this coun-

try out of one depression and promises to lead us out of another. Now, all these industries — automobiles, rubber, accessories, motor fuel, lubricants, etc., —have developed in less than four decades of keen competition, huge production, and constantly lower prices. Nowhere does American industry or the competitive system appear to greater advantage. New discoveries, methods, markets, processes, have come in unending procession. Wage policies have been liberal, labor troubles almost unknown, products year by year cheaper and better. Today this country has 60 per cent of the world's motor vehicles, and is building more than 75 per cent of them.

In 1914 the average wholesale value of all cars built, including trucks, was \$1,239; in 1933 it was \$479, a reduction of 63.9 per cent. In 1914 a tire for a light car cost from \$20 to \$22 and was guaranteed for 3,500 to 4,000 miles. In 1934 the corresponding tire cost \$5.30 and was good for 20,000 to 25,000 miles on the road. That is, the motorist of 1914 paid \$1 for 200 miles of travel on a tire. Today he pays \$1 for 3,750 miles.

In 1920, the average cost of gasoline, ex-tax, was 29.7c per gallon; in 1933 it was 12.66c, a drop of 59.23 per cent. Twenty years ago the average car's life was about 4.35 years; today it is about twice that; and the car of today covers probably 50 per cent more annual mileage than did the car of 20 years ago. The earlier cars were open and therefore less usable in bad weather; nowadays 99 per cent of cars are closed and so even more necessary in bad weather than in good. The aggregate result of all these factors is that today the average cost of running an automobile a mile is about 25 per cent of what it was 20 years ago.

Everybody knows how intensely competitive this whole field has been, and that competition has been the largest factor in producing these results. Certainly nobody can believe that if the Government had taken over the control of these industries 20 years ago, any such results could have been achieved. Yet in the face of this testimony to the efficacy of free competition—and similar evidence could be adduced from countless other industrial fields—we confront the serious proposal to put all industry and all enterprise into Government leading-strings. Too many of us, I fear, have not realized how far we have gone, how much farther we are being urged to go, in this direction. So I want to

review briefly some recent happenings under the New Deal.

Government in Business

A Washington dispatch the other day announced that in the near future the sign "For Rent or Sale—Uncle Sam, Owner," would begin to adorn properties throughout the country. It explained that the Home Owners' Loan Corporation was starting foreclosure suits against people who had borrowed to "save their homes." The HOLC had made up its mind to be hard boiled; delinquents must pay up or get out. That item reminded me of various conferences between the chief of the Reconstruction Finance Corporation and railroad reorganization committees, regarding the financial revamping of rail systems to which Uncle Sam had loaned money until he was tired, and now was laying down the law to them about how they should manage their finances in the future. If Rip Van Winkle should wake up one of these mornings and read the newspapers he would surely conclude that the Government was fairly launched in the business of taking over the railroads.

I wonder how long it will be before the rest of us realize that the Government is in fact getting handsomely started on the way to taking over pretty much everything.

Nationalization of Property and Services

Federal agencies have loaned some \$3,000,000,000 on farm mortgages or to farm financing agencies, and it is a safe guess that most of these farm land loans will not be repaid. So long as the interest is paid the loans will be renewed—and Uncle Sam will be well into farm landlordism. But this is only a beginning, for the Senate has passed the Bankhead bill, creating the Farmers' Home Corporation, to sell bonds and buy lands for tenant farmers. The Corporation would start with \$1,000,000,000, but of course that would be only a beginning. More Nationalization of the land!

Getting back to the Home Owners' Loan Corporation, I find it has loaned over \$2,500,000,000 in \$40,000 loans on city and town homes, in the first year of its operations. These are the loans on which foreclosures have recently been started.

Then the Government has become an enormous owner of stocks in banks and investment companies, and is now urging a banking bill that would give it complete control over all banking credit. Through the Tennessee Valley Authority, the Boulder Canyon, Grand Coulee and other enormous power and irrigation projects it is well launched in the public

(Continued on page 54)

CORPORATION CONTRIBUTIONS TO COMMUNITY SERVICE AGENCIES

By

Geo. M. Verity

Chairman of the Board, The American Rolling Mill Co., Middletown, Ohio

they prefer to support rather than to permit the officers of the corporations in which they are stockholders to make such gifts for them. Now on the face of it that might seem to be a very reasonable statement but it does not bear careful analysis.

The astounding thing about this statement is, that the President has, after two long years of supporting every conceivable sort of legislation that would prevent corporations from earning anything for their stockholders; after openly advocating plans and policies that would take from him who has and give to him who has not; after two years of absolutely ignoring that great army of forgotten men and women, the humble stockholders, he has finally admitted that such an individual does actually exist and that it is possible that he or she actually depends on their dividends for their economic existence.

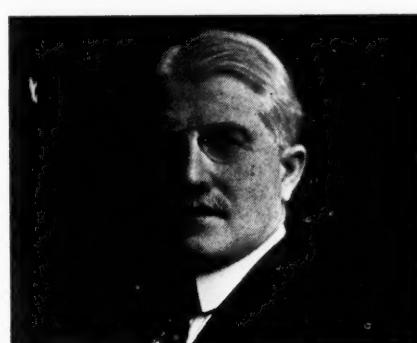
Stockholders, one and all, should rejoice that out of the wilderness of social reform that permeates the atmosphere that they have finally been discovered, and that their administrators in Washington are actually interested in preserving the earnings of the corporations in which they are stockholders, so that such earnings can be paid to them in dividends.

If the stockholders in anything, or his or her rights as such, have heretofore had either recognition or consideration, it has not been recorded in the daily news.

Why this sudden interest in saving corporation earnings for dividends?

To those who still must find the pay rolls of the nation and who must of necessity live in an atmosphere of fact and experience, rather than in the elian fields of social reform, this is simply further proof of the aims of the Administration's close advisers, experimenters in social reform and applied socialism, who have time and again made it clear that they favor a system of production for use and not for profit. Such a system can only end in complete Government control.

Corporation managements have been charged with many shortcomings, the greatest of which has been that of incompetency and dishonesty, all the facts as recorded in the history of a very large majority of our American industries to the contrary notwithstanding.



Geo. M. Verity

Here is a case where corporation management is charged with having an improper motive when it appropriates stockholders' earnings in the support of the charitable institutions, now accepted as essential to present-day standards of civilization and of living.

There was a time when many corporation managements cared little or nothing for hospitals or other community service organizations, but out of the costs and tragedies of the greatest of all world wars, one great gain for civilization was made. As a result of the cooperative and patriotic efforts made in support of the war, corporations and business men together with the people of our fine American communities became more generally community-minded than ever before in the history of the nation.

Industry, its employees and its stockholders were led to see that community service institutions which assisted in the development and maintenance of sound community life were absolutely essential to industrial peace and efficiency.

They came to see that the corporation as such had a distinct responsibility to the community and that through the meeting of that responsibility it could do much to help its working organizations and its stockholders.

Some president of a utility or of some other sort of corporation located somewhere may have said that he was trying to buy public good-will with his company's subscriptions to charity, but such an individual is no more typical of the great majority of present day managers of industry than are the comparatively few in finance, industry, the professions and even in politics itself, who have in the past proven unfaithful to their trusteeships.

A great majority of those who today carry the responsibilities of management are serving their stockholders and employees and the public to the best of

(Continued on page 60)



A Georgia
Cotton Field
That Produced
508 Pounds of
Lint Cotton
to Acre

The Southeast Coastal States have 4,822,000 acres of cotton in cultivation this year, about 6 per cent more than in 1934

SOUTHEAST HAS BEST SUMMER BUSINESS IN TWO YEARS

By

Howard L. Clark

SUMMER business throughout the Southeast from Maryland to Florida has been satisfactory and in some sections is the best in two years. Crops are in fine condition after a late start and more seasonable growing weather in the eastern cotton belt has not only helped the cotton crop but tobacco, corn and other staple crops of the region.

Expectations are for a good harvest and further business improvement this fall. With cotton pegged at 12 cents a pound farmers are assured of a profit. This, together with corresponding good prices for tobacco, has replenished the purses of farmers who have been paying off old bills and spending more freely than for two years.

Merchants in the farming areas throughout the section are in better shape and in a happier frame of mind. Much new private building and improvements are in evidence in the small farming communities. Fine trunk line high-

ways and well cultivated farms and the number of new automobiles on the roads leave an impression on the traveler that perhaps this is a region that has overcome the depression. This is true while Government relief is being received by many who are out of work, some of whom, without question are chiseling on the taxpayers. This is a problem for local citizens to handle, as elsewhere in the country, and it will be only through aggressive action that the whole relief question can be cleared up.

Having recently completed a 2200 mile motor trip over perfect highways from Baltimore through the Southeast into Central Florida, and making it my business to talk with the farmers and small merchants in the smaller towns, I found a majority in favor of the New Deal Administration's crop and price control policy. Farmers have been cooperating better this year in the adjustment program with fewer violations of contracts. There are some who freely question the wisdom of an artificial price maintenance above world levels that is causing a 40 per cent reduction in cotton exports and less exports of other crops. All agree that the country must pay for the vast expenditures of the New Deal Administration, but looking back a couple of years when farmers and merchants alike were on the verge of bankruptcy, they say what has been done saved them from ruin. They are not so much concerned in how it was done or where continued government expenditures and crop control will lead us. Most of them are content with immediate profitable conditions and hope that some way will be found to take care of the problems of tomorrow.

In the meanwhile, they are spending their money whether it comes from profits from their labor and crops or from land rental and benefit payments and Federal relief to the unemployed.

The wholesale and retail trade of the six states covered on this 2200 mile tour through the Southeast is in excess of \$3,800,000,000 a year. The value of their agricultural output last year was \$987,000,000; the value of their manufactures



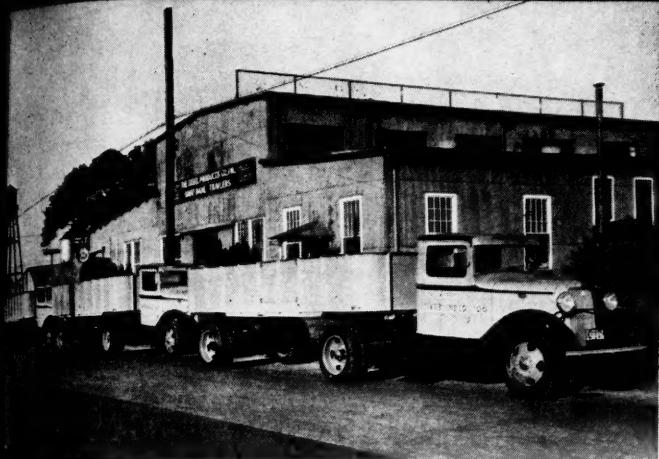
A Bridge
Near Miami

One of
Florida's Im-
proved High-
ways
Fine paved
roads now
connect all
important
centers in the
Southeast



2200 mile ways from the east into my business and small towns, I found New Deal were control operating government contracts. I mention the maintenance causing cotton exports to other crops. It pay for New Deal to back a number of banks been done are not so done or expenditures lead us. An immediate scope that care of

pending crops or payments employed. One of the automobile tour success of their \$987, manufactures



Steel Truck Bodies and Trailers Are Made by This Georgia Plant

Pronounced Activity in Florida Which Leads in New Private Building Operations and Development

is more than \$2,605,000,000, and the mineral output is probably \$50,000,000. Such a volume of buying power has its effect upon business in every line throughout the entire country.

Some sections visited are more prosperous than others, as is to be expected in so wide a territory and one so varied in its chief activities. While there is progress being made in the upper section and in the cotton and tobacco growing and cotton mill centers, the greatest building activity outside of Washington, D. C., is in Florida. This is particularly noticeable along the East Coast of Florida. In fact, much of the increased activity in Florida during the past winter season has been carried forward into the summer months. Real estate is more active in the residential and business field, and one land developer reported the sale of more farms in the past few months than for several years.

The upper East Coast and especially the Daytona Beach section is becoming more and more a summer resort region. Automobiles from practically every state in the Union are to be seen. Many of the towns are busy and reminded one of the flourishing winter seasons of some years ago. Indications are that the coming winter months will bring an influx of visitors into the State to surpass last season's activity when it is estimated that more than 515,000 motor tourists entered the State and that approximately \$500,000,000 were spent by winter tourists, new settlers and investors.

But the advantages of Florida are beginning to be realized in other directions.

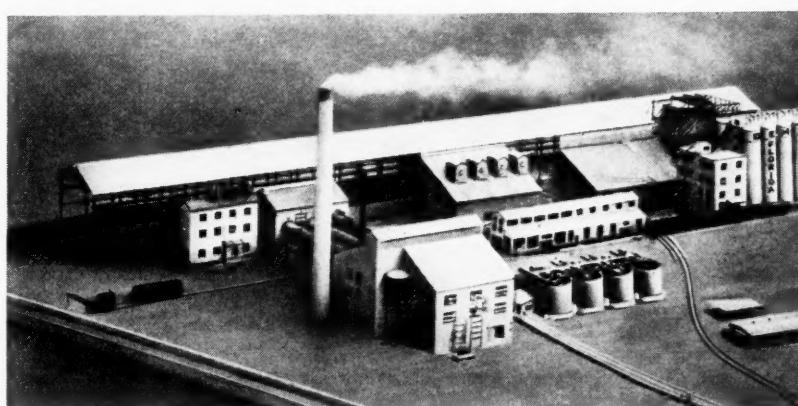
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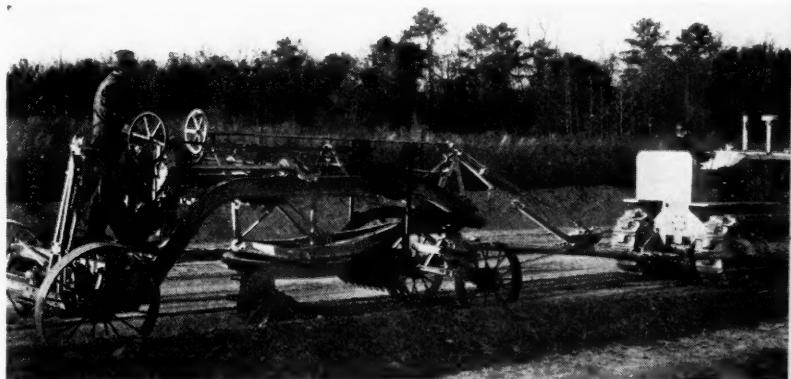
A Florida Terminal Refrigeration Plant

Many cold storage plants have been erected in the South and steamship lines have established refrigeration service for perishable products while in transit.

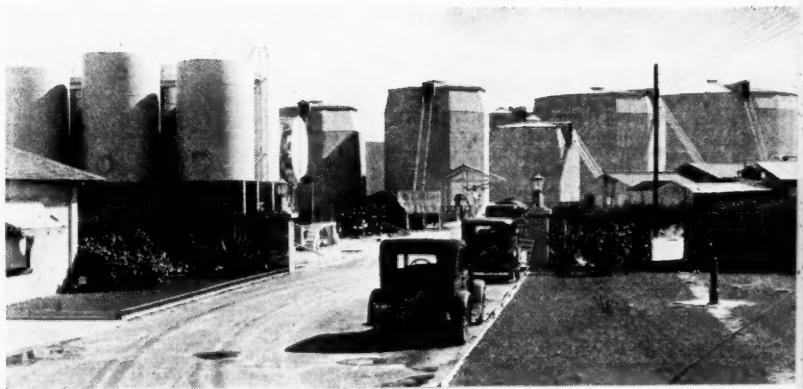
Florida's Modern Cement Plant



Making Smooth the Way in the Southeast



One of Many Bulk Oil Terminal Stations That Are Being Established in Southeast



Preparing Fire Breaks in Slash Pine Forest of Georgia



BACK TO THE LAND

THE extent of the "back-to-the-land" movement can now be accurately measured. Preliminary reports from the 1935 census of agriculture for the United States show that 6,812,049 farms comprise 1,055,180,000 acres, with a value for land and buildings of \$32,884,342,000. These figures disclose that there are more farms and a larger area in farms than for any census period in the country's history. They also show the disastrous effects of the 1921 deflation from which the agricultural region never recovered, and the present depression upon farm values for the 1935 valuation of land and buildings is the lowest in 25 years. Between 1920 and 1930 there was a drop of \$18,436,000,000 and a further decline since 1930 of \$14,995,000,000.

South Has 54 Per Cent of Country's Farms

Following the decrease in the number of farms in the United States between 1920 and 1930 censuses, there has been a gain of 363,706 farms over 1920 or 523,401 over 1930. Corresponding figures for the South show a steady in-

NUMBER OF FARMS

Census	United States	South
1900	5,737,372	2,895,590
1910	6,361,502	3,363,955
1920	6,448,343	3,459,528
1930	6,288,648	3,470,049
1935	6,812,049	3,689,695

crease in the number of farms since 1900. With 3,689,695 farms now operating in the South, there has been an increase of 230,167 farms since 1920 or 219,646 since 1930. In other words, nearly half of the increase in the number of farms in the country since

1930 has been in the Southern States although it has about one-third of the area of the country. *The South today has about 54 per cent of all the farms in the United States.*

50 Per Cent of Farm Land Increase in South

The area in farms in the United States is now the largest in the country's history with a gain of 68,408,993 acres since 1930. The South, which reported a steady decline in land in farms between 1900 and 1930, made a substantial gain in 1935. It has 410,752,410 acres in farms or a gain of 34,823,788 acres since 1930 which is more than 50 per cent of the country's total increase.

ALL LAND IN FARMS

Census	United States	South
Year	Acres	Acres
1900	838,591,774	394,967,996
1910	878,798,325	388,005,242
1920	955,883,715	383,952,001
1930	986,771,016	375,928,622
1935	1,055,180,009	410,752,410

Greater Decline in Farm Values Outside of South

Like the rest of the country, the South showed sharp declines in farm values since 1930. Naturally, Texas with the

largest area and the greatest number of farms, showed the most loss in farm values in the South but its decrease of 39 per cent is less than the total percentage of loss reported for the country. The decrease for the South as a whole amounted to 43 per cent as compared with a decrease for the rest of the country outside of the South of 46.3 per cent.

The value of farm land and buildings in the South today of \$9,790,669,000 is the highest, with the exception of 1920 and 1930. While the rest of the country showed a decrease of \$2,690,000,000 compared with 1910, the value of the South's farm land and buildings is \$774,000,000 greater than in 1910.

VALUE FARMS (Land and Buildings)

Census	United States	South
Year		
1900	\$16,614,647,000	\$4,088,564,000
1910	34,801,125,000	9,016,479,000
1920	66,316,002,000	18,154,866,000
1930	47,879,838,000	14,072,897,000
1935	32,884,342,000	9,790,669,000

Farm Gains in the South by States

In the South, West Virginia and Florida reported the highest percentage of increase in the number of farms, 26 and 23 per cent respectively, between 1930 and 1935. Kentucky reported the greatest increase in the number of farms with 31,299. The increases in the other Southern States were Tennessee, 28,126; Virginia, 26,632; Missouri, 22,514; West Virginia, 22,106; North Carolina, 21,259; Alabama, 16,060; Florida, 13,856; Arkansas, 10,679; Oklahoma, 9,459; Louisiana, 8,854; South Carolina, 7,573; Texas, 5,569; and Maryland, 1,219. Georgia reported a decrease of 5,054 farms but gained 3,228,000 acres in farm land and Mississippi had 983 farms less but gained 2,323,000 acres in farm lands.

Every Southern State reported a gain in land in farms. Texas showed the greatest increase in actual acreage in farms of 13,211,000.

Southern Farms, Land in Farms and Farm Values by States

States	Number of Farms 1935	Number of Farms 1930	All land in Farms 1935	All land in Farms 1930	Value Farm Lands and Buildings 1935	Value Farm Lands and Buildings 1930
Alabama	273,455	257,395	19,665,484	17,554,635	\$368,094,212	\$502,370,806
Arkansas	253,013	242,334	17,751,900	16,052,962	376,228,375	547,828,250
District of Columbia	89	104	2,801	3,071	7,183,087	7,143,712
Florida	72,822	58,966	5,936,253	5,026,617	317,335,618	423,346,262
Georgia	250,544	255,598	25,306,056	22,078,630	429,853,766	577,338,409
Kentucky	278,298	246,499	20,698,510	19,927,286	620,408,700	871,448,632
Louisiana	170,299	161,445	10,444,288	9,355,437	295,515,197	418,191,773
Maryland	44,412	43,203	4,383,641	4,374,398	241,064,142	356,170,168
Mississippi	311,683	312,663	19,655,487	17,332,195	371,418,757	568,322,065
Missouri	278,454	255,940	35,083,839	33,743,019	1,100,514,768	1,796,246,519
North Carolina	300,967	279,708	19,970,002	18,055,103	622,834,983	844,121,809
Oklahoma	213,325	203,866	35,401,560	33,790,817	784,534,341	1,242,723,526
South Carolina	165,504	157,931	12,386,698	10,393,113	286,967,057	379,190,630
Tennessee	273,783	245,657	19,088,208	18,003,241	555,769,791	743,222,363
Texas	501,058	495,489	137,918,745	124,707,130	2,582,664,909	3,597,406,986
Virginia	197,242	170,610	17,635,274	16,728,620	592,767,036	855,849,672
West Virginia	104,747	82,641	9,423,655	8,802,348	237,514,420	341,976,394
Total South	3,689,695	3,470,049	410,752,410	375,928,622	\$9,790,669,159	\$14,072,897,976
United States	6,812,049	6,288,648	1,055,180,009	986,771,016	\$32,884,342,378	\$47,879,838,358

THE NEW DEAL VIEWED BY SOUTHERN PAPERS

IT was to be expected, but it is none the less gratifying, that the leading papers of the South every day are calling the attention of their readers to the dangers of the present course at Washington.

As one editorial comment printed below points out, the South is the only large area remaining in the country that is still predominantly American in its blood and its tradition. There is, therefore, a peculiar responsibility resting upon the South to be on the alert against socialistic theories that lead to dictatorship and a different government from that of the Constitution.

It is well that editors of Southern papers, leaders of public opinion, whose influence is unbounded, are not hesitant in repeatedly calling attention to the possibilities confronting us and the staggering costs that will be inevitable.

The following excerpts will command attention:

JACKSON (MISS.) DAILY NEWS:

"The South is undoubtedly the only large area in our country that is still predominantly American in its blood, its traditions, and its political philosophy. The South now has upon its shoulders, the responsibility and the necessity for saving the nation through the preservation of those principles of government upon which we have built the greatest nation the world has ever known."

THE RALEIGH TIMES:

"It is becoming more and more evident that the multiplicity of questions raised by innumerable strange acts of Congress setting up administrations and authorities for direction by the President will be swallowed in the campaign of 1936 by one great issue.

"That issue will be the Constitution of the United States—the continuance or discontinuance of the form of representative government.

"Only once before has the issue been squarely presented and then in the extra-legal way of Civil War.

"Roosevelt the First also went after the Constitution when he proposed that the decisions of judges learned in the law should be subject to political machinations of State machines and the more or less gentle coercion of ward heelers passing the law in review at the ballot boxes."

"The present campaign is far more adroit. Its strategy is to pass laws that everybody who knows anything knows are unconstitutional. But once passed, the laws stick until the Supreme Court gets around to them. When it does get around to them and tosses them into the can for the garbage collector of waste paper, they have been in effect for months, even for years. Millions, even billions, may have been spent in their administration or enforcement. Armies of Federal employees may have been given jobs in the complicated business of

administering matters that the Government had no right to undertake. The water has run under the bridge. If the law proves to have been a dud, it has made a hole in the Treasury that never can be leveled and it has imposed artificial restrictions on supposedly free men who have no recourse."

CHARLESTON NEWS AND COURIER:

"Why not immediately raise all salaries to the level of the Federal salaries?

"Why should South Carolina wait to have its substance devoured by Washington? Why not devour itself, devour its own substance? At least there would be joy in it while the feast lasted—more joy in squandering our own stuff than from its squandering by Hopkins of New York and Ike of Chicago."

THE ATLANTA CONSTITUTION:

"America's astute business leadership, which has been tested and proven through the various tribulations of a century and a half, can now be trusted to finish the recovery task shouldered by the government during the past two years.

"All that is needed is for the existing uncertainty to be eliminated from the economic prospect.

"So again we say to Congress, adjourn, go home and give the country a rest and business a chance to go forward!"

THE LEXINGTON (KY.) LEADER:

"At Washington for more than two years those in charge of the government have been engaged in passing legislation regardless of constitutional inhibitions. The Supreme Court has been called upon to void one act after another. Four or five more are destined inevitably to go the same way. There has been an arrogation of power on the part of the executive

department such as never has been seen, and Congress has so far adhibited as to make it correct to say, as of today, that there are but two branches of the general government, the legislative-executive, and the judicial, instead of three independent and coordinate branches." * * *

"Another inconsistency in the New Deal program is to be found in the fact that while the government has been spending approximately \$1,000,000,000 in the payment of benefits to farmers based upon curtailment of crops, at the same time it has been equally busy in spending huge sums of money in various reclamation projects which will add tens of thousands and hundreds of thousands of acres to the arable land of the United States.

"Thus in another instance policies of the administration cut squarely across and neutralize each other at the expense of the American people, who in a few years will be called upon to shoulder a debt absolutely crushing and to pay taxes which will be appalling."

THE DAILY OKLAHOMAN:

"Continual efforts of congressional leaders to bring about the enactment of unconstitutional legislation and the occasional action of Congress in passing measures whose constitutionality is extremely doubtful presents a real puzzle to reflective minds. It leaves the thoughtful citizen wondering."

THE CHARLOTTE OBSERVER:

"If the government is within the limits of reason, of good economics and sound policy in subsidizing the farmer to prevent him from growing a surplus, why would not the cotton manufacturers be within equal reason in asking the government to do as much for them? They are economically in the same situation as the farmer. They make too much goods.

"And if the manufacturer of cotton, why not any and every other producer, processor, or what not?"

In another recent editorial, discussing the proposed government development of the Santee-Cooper River power project in South Carolina, *The Charlotte Observer* says:

"If the Federal Government can go into the business of producing, transmitting and selling electric current in South Carolina, how far away will it be before it could, also, decide to go into the cotton manufacturing business—lend the State of Carolina money enough to do all the manufacturing of cotton now being done by private investors.

"And if cotton mills, why not woodworking plants and grocery stores and filling stations—where will the end be? That's what we are getting at."

(The Federal Government is in the cotton manufacturing business and in fact now competes with private industry in some 200 lines, as was brought out in the Shannon Congressional investigation some time ago.—EDITOR MANUFACTURERS RECORD.)

(Continued on page 52)

THE MENACE OF SOIL EROSION

By

C. C. Prescott

Extension Department, Soil Erosion Service,
Meridian, Miss.

Our methods and use of the soil will determine the well-being of the present and future standards of living in the land. We may condemn future generations to poverty and low economic standards, or we may assure the present and future generations of rebuilt soil fertility.

No civilization can endure when the vital part of the land is wasted away. We must check erosion by artificial means when necessary and remove from cultivation slopes better fitted for forests and grazing, and allow nature to come to our aid with vegetative cover, and protection, and save what lands we now have as a heritage for our people.

Erosion control of our soils is the keystone of the whole farming structure. Soil erosion must be controlled by the

WE plowed up over 40,000,000 acres of grass land for production purposes during the war. Should we turn the 40,000,000 acres back to grass we would not have the original production for much of the fertility has gone as the result of soil erosion. However, more grass means less erosion and a more economical production of animal products.

The country is gradually becoming conscious of the menace of soil erosion. On all sides we are urged to extend measures of erosion control which are now being employed on the demonstration projects of the Soil Erosion Service. The growth of interest is the clarion of hope to thousands of hopeless and distressed farmers.

Erosion control must become a vital part of long time planning of land use, if we are to escape the poverty and low economic standards that have befallen older nations on account of destructive acceleration of erosion.

It is now felt that the Soil Erosion Service has something pertinent to contribute to the problem of soil conservation, flood control, the reduction of siltting and better land use. The time has come to determine what is the safe usage of land for crops, grazing and forests.

Contour Furrows In Pasture Holding Moisture And Growing Grass Controlling Erosion



Sheet And Gully Erosion Takes Toll Of Fertile Farm Land

More than 125,000,000 acres of land in the United States have lost most of the top soil from surface washing for lack of proper methods of cultivation to prevent erosion

frequently he loses it in just one year on a steep slope.

At least 3,000,000,000 tons of choice soil are washed out of our fields every



Tractor and Terracing Machine Building Terraces

closest possible harmony with the farmer and his conditions.

As a rule nature takes from 400 to 1000 years to produce one inch fertile top soil. Man requires only a few years tilling on a gentle slope to lose it and

year. This waste is alarming. To load and haul away this vast amount of farm soil would require a train of freight cars long enough to encircle the earth 37 times at the equator.

The purpose of the government through the Soil Erosion Service is to help establish a complete, well-balanced farm conservation program.

It aims also toward helping to develop some source of income from badly eroded areas.

A well-balanced farm rotation program is essential. The use of soil building and soil holding crops in strips on the contour is vital, and in addition just as many more cover crops as possible. On steeper slopes trees and grass further aid in controlling erosion by slowing down run-off water. Heavy rains falling upon hard ground rush over it carrying away the valuable top soil and often making deep cuts and gullies. It is estimated that more than 125,000,000 acres of land in this country have lost most of the top soil from erosion.



MODERN MUNICIPAL INCINERATOR

By

Marcus D. Weeks,
Supervising Engineer, Shreveport, La.

THE new garbage destruction plant (PWA project) completed for the City of Shreveport, Louisiana, at a total cost of \$167,542, has a capacity of 150 tons per 24-hour period. The building, extremely modern in design, was planned by the architects, Jones Roessle Olschner & Wiener, of Shreveport, so that a number of outstanding incinerators would fit the structure equally well. This enabled the architects to obtain competitive bids for the incinerator equipment. The incinerator design used is the H. E. Burns Incinerator, sometimes referred to as the "Superior".

The A. J. Rife Construction Co., of Dallas, Texas, was the low bidder on the complete project including building and incinerator equipment. The whole was let under one general contract for \$170,190. Deductions due to economical changes brought the cost of completed plant down to \$167,542.

The building is entirely fireproof, three stories in height, with a 200-cubic

yard garbage receiving bin on each side. The bins are placed below grade so that the garbage dump-trucks can back up to the curb and dump their loads directly into the bin. The building proper completely overhangs each bin and the building walls enclose the space above the bins, directly to the top or charging floor.

The top story is principally a charging floor, having steel hoppers into which the garbage is dumped, and from which it is fed into the furnaces. A 3-ton P & H electric crane equipped with a 2-cubic yard clamshell bucket travels from one side of the building to the other over this floor. Garbage is picked up out of the bin, elevated to charging floor level, then transported across to the desired hopper and dumped directly into the hopper.

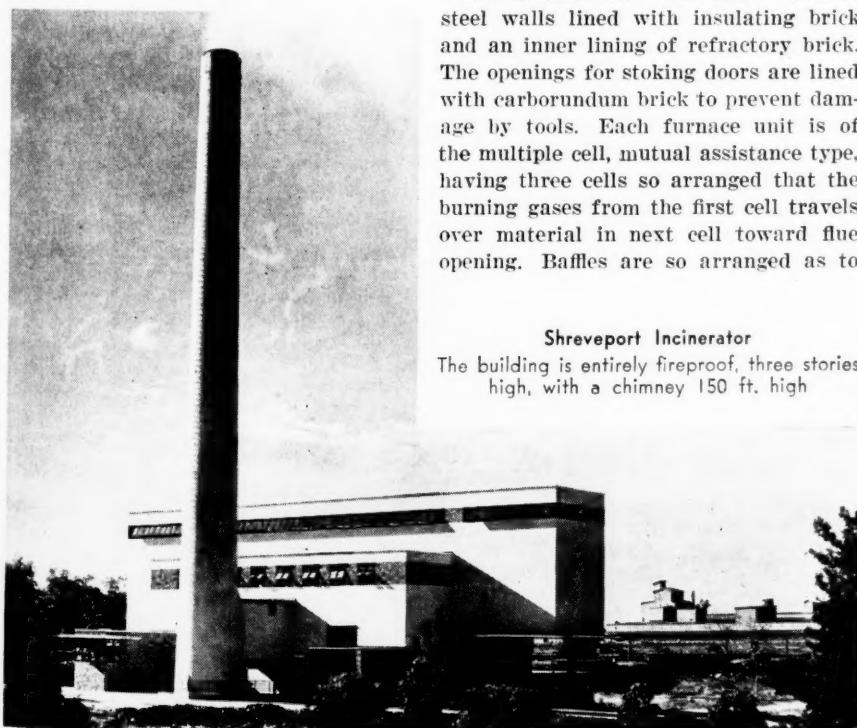
This story also accommodates an air compressor room, separate shower rooms for white and colored employees, and the Superintendent's office which is also equipped with private shower and toilet facilities.

The furnaces are on the second floor and consist of two separate units of three cells each, using a common breeching and stack. The arrangement is such that both furnaces may be operated simultaneously, or either may be operated while the other unit is cold.

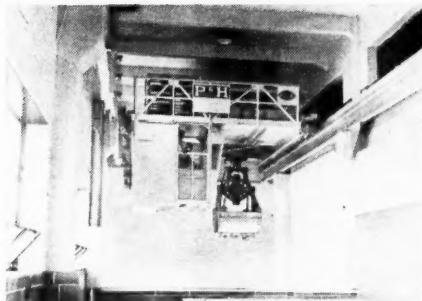
The furnace units are constructed of steel walls lined with insulating brick and an inner lining of refractory brick. The openings for stoking doors are lined with carborundum brick to prevent damage by tools. Each furnace unit is of the multiple cell, mutual assistance type, having three cells so arranged that the burning gases from the first cell travels over material in next cell toward flue opening. Baffles are so arranged as to

Shreveport Incinerator

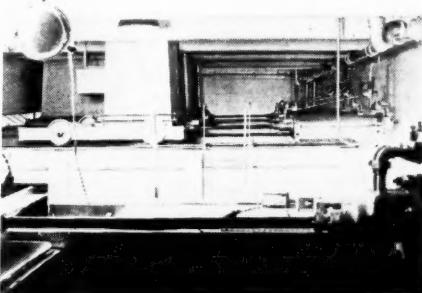
The building is entirely fireproof, three stories high, with a chimney 150 ft. high



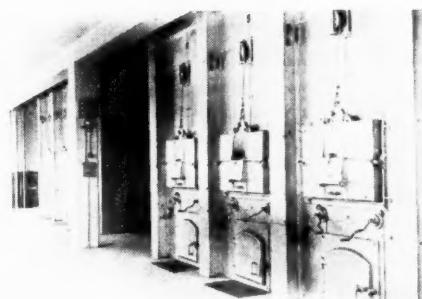
AUGUST NINETEEN THIRTY-FIVE



Garbage Is Moved From Receiving Bins to Charging Hoppers by Means of Electric Crane and Bucket



Garbage From Hoppers on Floor Above Falls Directly Through Pneumatically Operated Charging Gates



The Furnaces Are Two Units of Three Cells Each

retain the primary combustion in these cells. After leaving these cells the gases of combustion enter a combustion chamber where temperatures of 1400° to 1800° Farenheit occur and combustion is completed. From the combustion chamber, part of the high temperature gases may be by-passed through a preheater consisting of cast iron-alloy tubes around which fresh cold air is forced. The fresh air is thereby heated to 400° F or above and delivered hot under the grates, thus facilitating the combustion in primary cells. Gases of combustion not needed in the preheaters are exhausted directly into breeching and stack.

The stack is constructed of an outer wall of radial hollow tile, inside of which is a refractory lining. The height is 150 ft. above grate line and the inside diameter of stack at top is 6 ft. 6 in.

The furnaces are charged by the stokers on furnace floor by pulling chains which control pneumatic gate closers.

(Continued on page 58)

INDUSTRIAL BUILDING GAINS

INDUSTRIAL expansion and increased private building featured the past month's construction activities in the Southern States. Building and engineering contracts awarded during July, as reported by the MANUFACTURERS RECORD DAILY CONSTRUCTION BULLETIN, amounted to \$40,274,000, making a total of \$275,837,000 for the first seven months of 1935.

While there was a decline of \$10,000,000 in public building and road construction in July compared with June, there was a gain of nearly \$8,000,000 in industrial and engineering awards. Public construction throughout the South has been at a lower rate this year which accounts for the fact that the total for the first seven months of this year is 8 per cent below the corresponding period of last year. In the total of private building, amounting to \$41,748,000, which includes dwellings, the actual increase in the South this year exceeds \$22,000,000.

More Store Building

Awards of \$6,563,000 for new stores and improvements this year are indicative of general improvement in business. Compared with the total of \$2,828,000 for similar construction during the first seven months of 1934, the gain this year is 132 per cent, or 32 per cent more than

\$40,274,00 Total Awards for Construction in South During July With Private Building Operations Increasing While Public Works Declined.

the total awards for store building during the whole of 1934.

Residential Construction

The amount invested in residential construction this year is practically double that of 1934 on individual jobs in excess of \$10,000 each. Considering the large number of small homes being built, the aggregate amount is much greater than the \$22,000,000 reported for this class of work this year.

Substantial Gains in Industrial Work

Industrial awards of \$55,863,000 for new and improved plants to August 1, exceeds by more than \$14,000,000 the total for the 1934 period. During June the largest industrial project was the \$4,000,000 paper plant at Savannah. In July the Bethlehem Steel Company started work on a \$5,000,000 cold strip mill at Sparrows Point, Md. The Petroleum industry is continuing to expand in the South, new refineries and pipe lines and oil terminals leading in value.

SOUTHERN CONSTRUCTION ACTIVITY

	July 1935		January-July, 1935	
	Contracts Awarded	Contracts to be Awarded	Contracts Awarded	Contracts to be Awarded
General Building				
Apartments and Hotels	\$1,688,000	\$1,275,000	\$9,207,000	\$10,451,000
Association and Fraternal ..	80,000	100,000	441,000	1,275,000
Bank and Office	264,000	808,000	2,542,000	3,200,000
Churches	210,000	633,000	1,007,000	3,394,000
Dwellings	3,619,000	1,249,000	21,988,000	15,248,000
Stores	1,040,000	679,000	6,563,000	5,898,000
	\$6,901,000	\$4,744,000	\$41,748,000	\$39,466,000
Public Buildings				
City, County, State and Government	\$2,543,000	\$5,591,000	\$44,332,000	\$42,086,000
Schools	701,000	6,900,000	13,393,000	40,395,000
	\$3,244,000	\$12,491,000	\$57,725,000	\$82,481,000
Roads, Streets and Paving ...				
Industrial and Engineering Projects				
Drainage, Dredging, Irrigation	\$2,494,000	\$3,128,000	\$8,466,000	\$18,887,000
Filling Stations, Garages, etc.	1,131,000	215,000	2,823,000	2,707,000
Industrial Plants	12,134,000	8,990,000	55,863,000	99,347,000
Levees, Revetments, Seawalls, Dikes, etc.	3,963,000	1,986,000	12,887,000	11,170,000
Sewers, Drainage, and Waterworks	2,338,000	8,972,000	14,617,000	39,759,000
	\$22,060,000	\$23,291,000	\$94,656,000	\$171,870,000
Total	\$40,274,000	\$51,339,000	\$275,837,000	\$373,420,000

Road Construction Lags

Road and bridge awards to August 1 this year amounted to \$81,708,000 as compared with \$125,344,000 for the first seven months of 1934. Slightly more than \$8,069,000 in road contracts were let during July.

A cross section of the construction activity of the South during July, as reported by the MANUFACTURERS RECORD DAILY CONSTRUCTION BULLETIN, is given in the following selected items:

Proposed Work

Ala., Alexander City—City, T. C. Russell, Mayor, plans \$34,000 sewage system for Oaklawn subdivision; R. L. Keenan and Associates, Engrs., Bell Bldg., Montgomery.

Ala., Birmingham—Among the PWA expenditures proposed for this locality are \$446,664 for brick paving and \$1,289,055 for grading roads in Jefferson County.

Ala., Birmingham—Investors Syndicate, R. G. Robinson, Chrm. Committee, plans reconstructing Edgewood Lake dam; cost \$20,000; soon let contract; Paul G. Wright, Engr.

Ark., Cabot—City, E. L. Bailey, Mayor, applied for PWA loan of \$28,500 for sewer system.

Ark., DeWitt—DeWitt Special School District No. 1 applied for \$80,100 PWA funds for construction of brick school.

Ark., Dierks—City, C. P. Allen, Mayor, applied for PWA loan of \$30,154 for sewer system and \$54,722, for water works system.

Ark., Fayetteville—University of Arkansas, Dr. J. C. Futrell, Pres., considering plan for asking \$25,000 for remodeling buildings; L. L. Brown, Supt. of Grounds and Buildings.

Ark., Hot Springs—Lake Hamilton Yacht Club, Ed. McDonald, Pres., clearing site Point Lookout, for \$100,000 clubhouse; modern facilities; garage in basement; Brueggeman and Swain, Archt., Little Rock.

D. C., Washington—Treasury Dept., Procurement Division, Public Works Branch, has low bid of \$9,284,000 from George A. Fuller Co., Washington, for construction of Department of Interior building; Consolidated Engineering Co., Inc., Baltimore, second at \$9,370,000; Cauldwell-Wingate Co., New York, third at \$9,461,000.

D. C., Washington—Dravo-Doyle Co., 302 Pennsylvania Ave., Pittsburgh, Pa., low bidder at \$155,900 for unit No. 3 sewage treatment plant Blue Plains; Suburban Engineering Co., New York City, second low at \$155,984; Charles H. Tompkins Co., 1630 Connecticut Ave., Washington, low at \$563,200, for unit No. 4; John W. Cowper Co., Natl. Press Bldg., Washington, second low at \$573,672.

Fla., Bradenton—Treasury Dept. has low bid of \$44,500 from Robert C. Gregan, Bradenton, for construction of post office.

Fla., Clearwater—City plans \$225,000 recreation pier and yacht basin, Cleveland St.; cone floors; cone pile found.; built-up roof; John F. Reynolds, Engr., Jacksonville; will apply for PWA loan.

Fla., Miami—Dade County Commrs. has low bid of \$10,873 from G. O. Reed, Inc., 1345 20th St., Miami Beach, for type A bridge over Biscayne Canal, West Dixie Highway; of \$26,000 from Powell Brothers, for type B bridge; of \$21,000 for type B, rein. pier.

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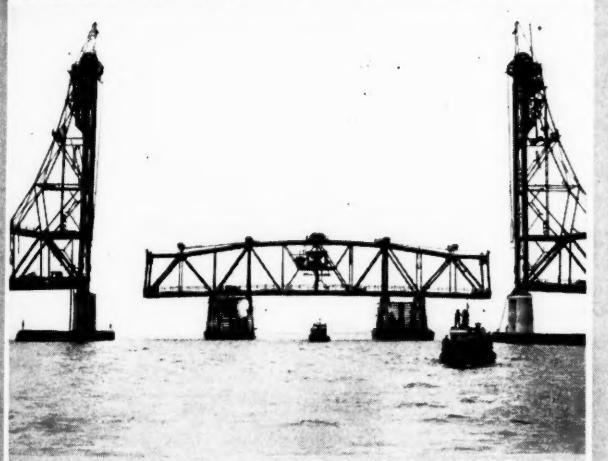
OR



JAMES RIVER BRIDGE, NEWPORT NEWS, VA



COCHRANE BRIDGE OVER MOBILE BAY, MOBILE, ALA



SAN FRANCISCO BAY BRIDGE, SAN FRANCISCO, CAL



EVERETT-MARYSVILLE BRIDGE, NEAR SEATTLE, WASH.

AUGUST NINETEEN THIRTY-FIVE

Weight and Counterweight

WITH each Vertical Lift Span there are two counterweights, one at each end to counterbalance the weight of the lift span as it raises up and down. Sheaves, cables, gears and motors properly coordinated and synchronized permit easy operation and lifting of hundreds of tons of weight.

We have built in the past twenty years or more a great many vertical lift bridges throughout the country. This is only one of the many kinds of steel work, both bridges and buildings which we do. But it is probably the most exacting to be found. And its successful handling indicates a thoroughly capable organization to which may be safely intrusted all problems of steel design and construction.

Let us furnish you designs and estimates on your steel needs whether they are large or small. If you have not decided to use steel, let us show you its advantages and economies. No obligation is involved.

VIRGINIA BRIDGE & IRON CO.

Roanoke Birmingham Memphis Atlanta New York
Los Angeles Charlotte Austin El Paso

VIRGINIA BRIDGE

STEEL STRUCTURES

James River Bridge: More than 5 miles long and crosses the historic James River just above its mouth at Newport News. The engineers were J. E. Greiner Company, Baltimore, Md., and Turner Construction Co., New York, general contractors.

Cochrane Bridge, over Mobile Bay: This Lift Span is 325 feet long and raises to a clear height of 135 feet above water. Harrington, Howard & Ash, Kansas City, Mo., were engineers and Kansas City Bridge Co., Kansas City, General Contractors.

San Francisco Bay Bridge: One of the longest highway bridges in the world, 7 miles in length. Waddell & Hardesty, New York, Engineers, and Raymond Concrete Pile Co., New York, General Contractors. Views show lift span being floated into place by our erection forces.

Everett-Marysville Bridge: An important highway bridge hook-up by the State of Washington, on which we furnished a number of fixed spans, 2 swing spans and a vertical lift. J. A. McEachern Co., Seattle, were General Contractors on the entire project. Waddell & Hardesty were Engineers on the lift span.

Proposed Work

(Continued from page 26)

Fla., Miami Beach—Clayton Shappell, and associates plan erecting 10-story hotel, Twentieth and Twenty-first Sts., Collins Ave. and the ocean, install sea walls in front of proposed hotel site and adjoining lot; erection depending on construction of ocean front protection at street ends and in front of Collins Park by the city.

Fla., Moore Haven—U. S. Engr., Jacksonville, recommended award of contract to Mc-Williams Dredging Co., 1021 Hibernia Bank Bldg., New Orleans, La., at \$635,855, on combination bid, Sect. 1, 2 and 3, in Caloosahatchee Canal, between Lake Okeechobee and Lock No. 3 at Fort Thompson.

Fla., New Smyrna—U. S. Coast Guard applied to PWA for \$114,000 for replacing various submarine cables, also for additional sum for reconstructing and reconditioning shore facilities, modernizing and rebuilding 3 coast guard stations.

Fla., Tallahassee—State Board of Control soon to erect state chemistry building, \$100,000; Rudolph Weaver, Archt., Peabody Hall, Gainesville.

Fla., Tallahassee—State Road Dept. has low bids for projects in following counties: **Dade-Broward**—Road 4, Ojus, Hallandale, Atlantic Shores and Hollywood, paving 2,896 mi., H. E. Wolfe Construction Co., St. Augustine, \$210,986;

Palm Beach—Road 26, south of South Bay, construction of bridge, Atlantic Dredge & Construction Co., Lakeland, \$67,044;

Okeechobee—Road 8, approximately 1 mi. east of Okeechobee, construction of bridge, Trammell & Wall, Gainesville, \$9,564;

Hillsborough—Road 5, paving .581 mi. south of Pasco County line, Cone Brothers Construction Co., Tampa, \$27,007.

Fla., Tampa—Atlantic, Gulf & Pacific Co., 15 Park Row, New York City, will probably receive contract at \$1,316,101, on combination bid for Sections 1, 2, 3 and 4, dredging in Tampa Harbor.

Fla., West Palm Beach—Robert Kloeppel, owner-director of George Washington Hotel, Jacksonville, acquired El Verano Hotel, 200 rooms, on Lake Worth; will improve; operate as George Washington.

Fla., Winter Haven—Ralph B. Wagner, Pres. Central Florida Gas Corp., Winter Haven, applied to city commission for franchise to operate electric power plant in connection with gas plant; E. B. Walthall, Mayor.

Ga., Albany—City Comsn. has adopted ordinances providing for \$100,000 program of extending paving, sewers, gutters and curbs.

Ga., Atlanta—Fulton County, Frank Eaves, Engr., applying for \$75,000 Federal funds for construction of laundry at county jail.

Ga., Atlanta—Board of Regents, University System of Georgia, may soon start activity on \$1,000,000 program for improvement of institutions of higher learning throughout Georgia; Robert & Co., Supvg. Archts., Atlanta.

Ga., Roswell—City, Nap Rucker, Mayor, will apply for \$65,000 funds for water system.

Ga., Covington—Board of Education, Charles Chandler, Chmn., selected Henry H. Jordan, Healey Bldg., Atlanta, architect for proposed school work; add 8 classrooms and gymnasium and auditorium to present building; 2 stories, conc. foundation, brick walls, stone trim, struc. steel, comp. roof.

Ga., Gainesville—Hall County has approval

on \$81,408 PWA funds for construction of court house.

Ga., Graymont, Summit—Emanuel County Board of Education plans \$50,000 combination high and elementary school; 18 classrooms and auditorium; F. Arthur Hazard, Archt., Masonic Bldg., Augusta.

Ga., Hogansville—City voted to install \$30,000 water works extension.

Ga., Rockmart—Lam Amusement Co., Rome, has plans by Tucker & Howell, Archt., 1711 Rhodes Haverty Bldg., Atlanta, Ga., for theatre; soon call for bids; 2-story; conc. found.; brick walls, struc. steel comp. roof; metal marquis; Robt. S. Fiske, Engr., 1421 Healey Bldg., Atlanta.

Ga., Savannah—Sacred Heart Church, Rev. Father Boniface Bauer, Rector, plans improvements to church, enlarge sanctuary; erect marble altar, etc.

Ky., Hazard—Marlow Coal Co., plans rebuilding burned coal tipple at Defiance, 7 miles south of Hazard.

Ky., Lexington—City, Charles W. Fitjian, City Mgr., received low bid at \$64,624, from A. Arcari, Detroit, Mich., for Pro. No. 9, storm sewers; Carey-Reed Co., 613 Citizens Bank, Lexington, at \$29,521, for Pro. No. 10; F. T. Justice & Co., Fourth & Jefferson Sts., Lexington, at \$14,481, for Pro. No. 11; J. White Guyn, City Engr.

Ky., Lexington—Fayette County Fiscal Court has outline of plans of Civic Center Committee for proposed \$600,000 civic center at head of Explanade.

La., Bastrop—Southern Natural Gas Co., N. R. McKay, Engr., Birmingham, Ala., announced construction work to begin soon in Morehouse parish on laying 18-in., gas pipe line to traverse parish and extend into West Carroll parish; line will be parallel to and 15 ft. away from present line.

La., Monroe—Ouachita Valley Fair Assn. applied for \$75,000 loan and grant for constructing community center and agricultural fair buildings; H. E. Dickard, Engr.

La., Opelousas—City plans applying for \$2,000,000, from PWA for incinerator, filtration plant, removal of water tower; extension of sewerage system; improvements to airport; playgrounds, etc.

La., Plaquemine—Treasury Dept. has low bid of \$39,370 from Reiling & Dietzen, Russellville, Ala., for construction of post office.

La., Springville—Livingston Parish Police Jury authorized Wm. R. Burk, Archt., 7831 Plum St., New Orleans, to file application with PWA for \$150,000 for construction of court house and jail; 75x125 ft., court house 3 stories, jail 4 stories; face brick exterior, tile roof, steel jail equipment, plastered interior, steel sash.

Md., Baltimore—Baltimore Transit Co., Lucius S. Storrs, Pres., plans rehabilitation of system and improvement to service throughout the city.

Md., Baltimore—State Roads Comsn. plans re-routing Federal Highway 40 between Frederick, Frederick County, and Clear Spring, Washington County.

Md., Hagerstown—City plans storm water project northwestern section; cost \$75,000, and sanitary sewage project in northeast section cost \$60,000.

Md., Hampstead—City will issue \$35,000 bonds for constructing water supply system.

Miss., Lexington—Holmes County Board of Supvrs. probably open bids in 60 days for construction of \$20,000 jail; 2 stories, 30x40 ft., rein. conc., detention steel sash, steam heat; N. W. Overstreet & Town, Archts., Jackson.

Miss., Philadelphia—Treasury Dept. has low bid of \$33,227 from Walter L. Perry Construction Co., Philadelphia, for construction of post office; Murphey Pound, Columbus, Ga., second at \$34,808.

Missouri—Current River Power Co., 1105 R. A. Long Bldg., Kansas City, applied to Federal Power Co., for license pursuant to preliminary permit for power project on Current River in Ripley, Carter and Shannon counties.

Mo., Affton—Board of Education, A. W. Youngman, Pres., has low bid of \$61,633 from Robert Paulus Construction Co., 2205 Ann Ave., for construction of school; brick, 1 and 2 stories, 120x55x70x54 ft., classrooms and auditorium; Bonsack & Pearce, Inc., Archts., 411 Olive St., St. Louis, Mo.

Mo., Kansas City—City, N. W. Hyland, Asst. Director of Public Works, plans storm and sanitary sewer and 10 lateral sewers Fifty-ninth, Sixty-first, Swope Park and Kensington.

Mo., Kansas City—Walter Edwin Bixby, Asst. Sec., Kansas City Life Insurance Co., acquired 4½ acres east side of State Line south of Sixty-fourth St. Terrace, erect dwelling; Edw. W. Tanner, Archt.

Mo., Kansas City—University of Kansas City soon start constructing \$50,000 library.

Mo., St. Louis—Mallinckrodt Chemical Works, Fred W. Russe, Sec., 3600 N. Second St., purchased plant of Buck's Stove & Range Co., consisting of 12 buildings Mallinckrodt, Destrehan, Hall and Second Sts.; will use for warehousing purposes.

Mo., St. Louis—Board of Aldermen passed ordinance authorizing election Sept. 10 on \$8,300,000 bonds, \$7,500,000 of which is to be used for purchase of 37 blocks adjacent to Mississippi River, in connection with proposed National Memorial, for which LaBeaume & Klein, 315 N. Eighth St., are advising architects.

North Carolina—National Park Service soon will ask bids for another section of scenic parkway to connect Shenandoah National Park in Virginia with Great Smoky Mountains National Park in North Carolina; the 8-mile section will continue south into North Carolina from end of 12.5-mile section, on which plans for work are going ahead.

N. C., Charlotte—Walgreen Co., main office, 744 E. Bowen Ave., Chicago, Ill., reported, probably acquire old banking quarters of Independence Trust Co., for stores; expend \$30,000 for improvements.

N. C., Creswell—Town, W. M. Darden, Atty., will apply for PWA loan of \$40,000, for installing water and sewer system; W. F. Freeman, Engr., High Point.

N. C., Davidson—City, W. H. Thompson, Clerk, construct sewage disposal plant; issue \$18,000 bonds.

N. C., Kings Mountain—City Council adopted resolution to issue \$30,000 bonds for construction of city hall; brick; to ask PWA funds.

N. C., Kinston—Lenoir County Comms. and City Council of Kinston are considering a city-county building program; Mitchell Wooten, Archt.

N. C., Oxford—Granville County Comms. plan election Oct. 1 on \$55,000 bonds for construction of hospital.

N. C., Pine Hill—Town plans installing water works and sewers; applied for PWA loan of \$50,000.

N. C., Rich Square—Jones & Son & Co., Inc., 622 Front St., Norfolk, Va., erecting 10 warehouses of 1000 bales of cotton capacity each on 8 acre site.

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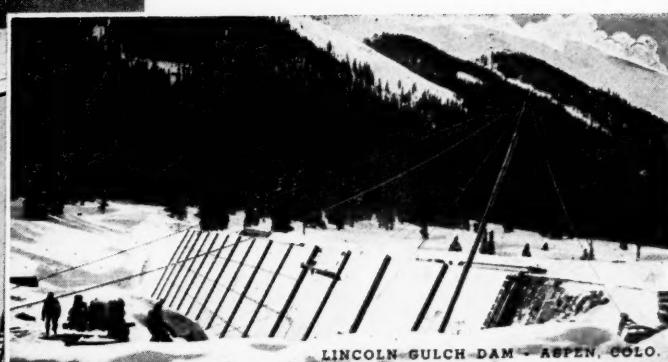
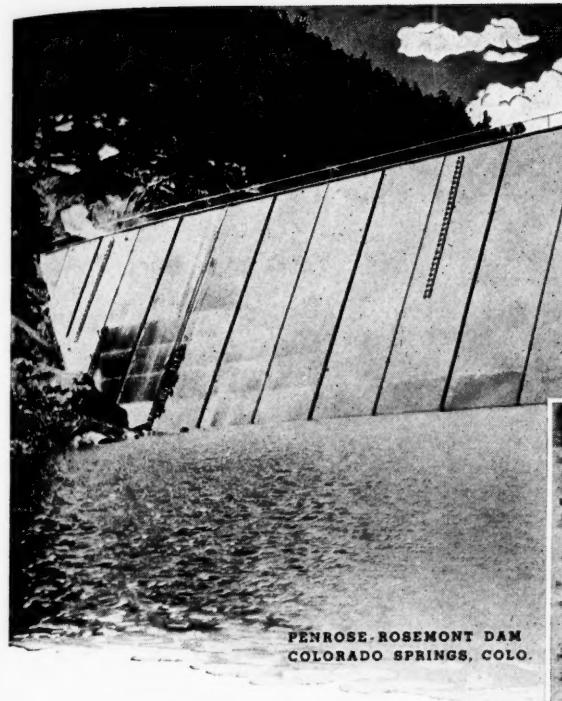
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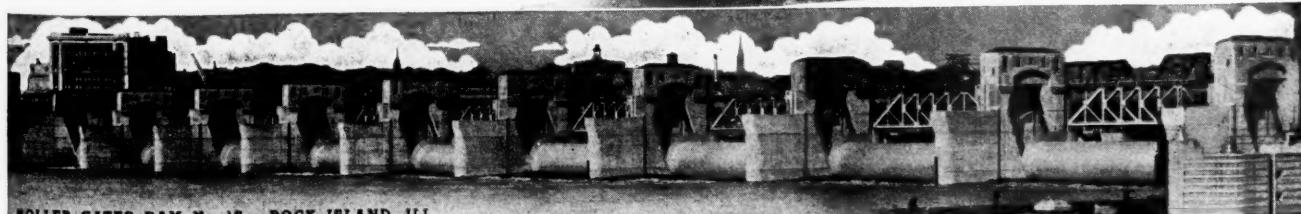
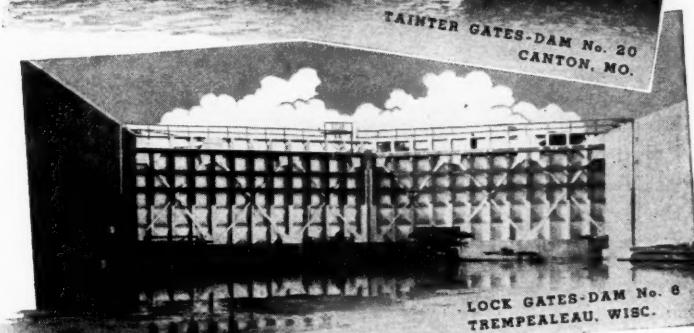
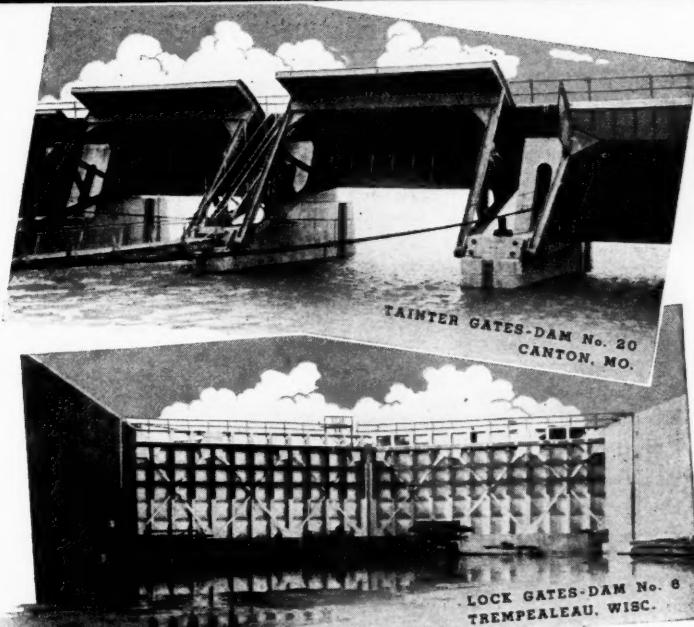
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STEELWORK for WATER STORAGE OR WATER CONTROL

STRUCTURAL steel and plate work for the most widely varying requirements of water storage and water control has been a specialty of American Bridge Company for many years. Dams, gates, and supplemental structures fabricated and erected by this company have in many cases been of highly special types; and the projects undertaken have covered a full range, from large to small. The organization and facilities of the company are adapted and available for any task, of whatever nature, in the use of structural steel.



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Pacific Coast Distributors: Columbia Steel Company, San Francisco • Export Distributors: United States Steel Products Company, New York

United States Steel  Corporation Subsidiary

GOOD ROADS AND MOTOR TRANSPORT

13,337 Miles Highways Completed

During the fiscal years 1934 and 1935 a total of 13,337 miles of highways was completed, according to a report of United States Bureau of Public Roads. About 4000 miles more are under construction and 675 miles approved for building. Figures cover highways outside of municipalities. Cost of the completed roads is given as \$201,675,656, of which \$178,825,369 was from public work funds, and the remainder supplied by the states. Roads under construction are estimated to cost \$88,262,779, of which \$78,327,210 was charged against Federal appropriations. The balance remaining for new projects is \$11,136,810.

Highways constructed into and through municipalities covered a total of 1903 miles, at a cost of \$103,763,295, while 508 miles of similar roads are under construction at a cost of \$45,040,286. The Bureau has approved construction of 134.4 miles to cost \$8,737,197, and there is a balance of \$13,917,668 still remaining for the construction of this type road.

\$365,021,000 Freight Earnings From Highway Sources

One third of the number of carloads of manufactured freight shipped on railroads may be traced to the automobile according to Alfred H. Swayne, vice president of General Motors Corporation and chairman of the traffic committee of the Automobile Manufacturers Association.

"In 1934," said Mr. Swayne citing figures obtained from the Interstate Commerce Commission records, "the railroads handled 6,833,558 carloads of revenue freight classified as 'manufactures and miscellaneous' by the Commission. Figures compiled by the Automobile Manufacturers Association indicate that 2,258,000 carloads of this freight can be traced to the automobile. The items are motor vehicles, parts and tires, 472,505 carloads; iron and steel used in motor vehicle manufacture 153,000; oil and other supplies 270,500; gasoline for automobiles 1,140,000; cement for roads and bridges 222,000.

"The Commission's statistics disclose the extent to which the railroads profited from the increased production of automobiles. Shipments of motor vehicles, parts and tires increased in 1934 to 472,505 carloads compared with

295,999 carloads in 1933. Railroad earnings on this freight increased to \$84,843,608, a gain of 30,281,442 over the previous year.

"Gravel, sand, stone and crude petroleum for roads, coal and lumber used at the automobile plants accounted for 806,800 carloads in the Commission's figures on products of forests and mines, or more than 8 per cent of the total in that classification.

"Our studies indicate," said Mr. Swayne, "that of the total revenue carload freight of all kinds carried by the railroads in 1934, 3,064,800 carloads or 14.4 per cent producing \$365,021,000 in freight earnings, were derived from shipping that can be traced to the manufacture and use of automobiles."

East Coast Parkway Planned

The National Park Service, Washington, is investigating the possibilities of a national parkway from New England to North Carolina and maybe deeper into the South. The Shenandoah National Park, with its Skyline drive; the Great Smoky Mountain Park, and the parkway link connecting them would be a working base for the projected highway, it is said. The Government has made available \$5000 for a preliminary survey to determine the possibilities of a parkway from Washington to New England, while such a survey of the Natchez trace in Mississippi has already been made.

Mississippi County Eliminates Gasoline Tax

Due to the recent elimination of a county tax of 2 cents per gallon on gasoline, motorists of Jackson County, Mississippi, will pay two cents a gallon less on the gasoline they use. The decision of the Jackson County Board of Supervisors to eliminate this tax was announced by R. W. Dunn, chairman of the Mississippi Petroleum Industries Committee, which met at Jackson, Miss., in July. This committee has led the fight for the abolition of county taxes in Mississippi on gasoline, and the Jackson County group, of which Frank S. Carty is chairman has been active in carrying on an educational program which finally convinced the Board of Supervisors of the burden of the tax on residents of the county. Chairman Dunn declares that his organization will continue the fight for the elimination of taxes on gasoline in Hancock and Harrison counties also.

Buys Trucks and Hoists For Road Building

At a cost of more than \$40,000, the Florida State Road Department, Tallahassee, recently purchased 62 motor trucks and 24 hydraulic hoists for use in road construction. The purchases were made as follows:

- 6-1½ Ton Chevrolets—Alford Chevrolet Company, Tallahassee, Fla.
- 5-1½ Ton Chevrolets—Highlands Motor Company, Dade City, Fla.
- 9-1½ Ton Fords—Sam Murray, Inc., Miami, Fla.
- 7— Pick-up Fords—Sam Murray, Inc., Miami, Fla.
- 5-1½ Ton Chevrolets—Turnipseed Motor Co., Ocala, Fla.
- 1-1½ Ton Ford—Douglas-Stinson Motor Co., DeFuniak Springs, Fla.
- 8-1½ Ton Fords—Tallahassee Motor Company, Tallahassee, Fla.
- 1— Panel Ford—Priest Motor Company, High Springs, Fla.
- 8— Pick-ups IHC—Orange State Motor Co., Inc., Tampa, Fla.
- 4— Pick-ups IHC—James Messer, Inc., Tallahassee, Fla.
- 4— Pick-ups IHC—Quinn R. Barton, Jacksonville, Fla.
- 4— Pick-ups IHC—Gruber-Wright Truck Co., West Palm Beach, Fla.
- 24— Hydraulic Hoists—Nelson Chevrolet Co., Inc., Panama City, Fla. (Hercules)

Road Oil Sales Increase

Due to increased construction of secondary and farm-to-market roads, financed largely by Federal funds, sales of road oil have increased more than one-fifth, according to statistical and economic surveys of the Petroleum Economics Division of the United States Department of Mines, Department of the Interior. Sales by petroleum refineries in the United States increased from 6,238,893 barrels in 1933, valued at \$6,289,119, to 7,702,753 barrels in 1934, valued at \$10,741,998. Gains were general, except in the Appalachian district but were greatest in the Rocky Mountain district, the Oklahoma-Kansas-Missouri district, the California district and the Indiana-Illinois-Kentucky district.

Road oil sold by petroleum refineries in the United States, 1934, by districts.

1934		
District	Barrels	Value
East Coast	938,053	\$1,392,665
Appalachian	88,195	186,298
Indiana-Illinois-Kentucky	1,984,414	2,390,175
Oklahoma-Kansas-Missouri	942,072	1,071,206
Texas:		
Gulf Coast	204,888	274,188
Rest of State	79,969	79,963
Louisiana-Arkansas:		
Louisiana Gulf Coast	52,464	95,089
Northern Louisiana and Arkansas	157,992	158,104
Rocky Mountain	1,023,434	1,431,920
California	2,231,272	3,662,336
Grand Total	7,702,753	\$10,741,998

It's A Continental



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The unusual performance of the Continental Wagon Scraper has enabled the A. C. Ochs Brick & Tile Company, of Springfield, Minnesota, to slash the cost of moving the 20 feet of overburden above the clay deposit. On a 4-hour period, the Wagon Scraper, pulled by a "40" tractor, loaded, moved and placed 58 loads on a 225-foot haul (450-foot round trip)—all with one man. The loads averaged 4 cubic yards in a 60 to 100 foot run, and 5 yards on longer runs.

The loads were then dumped to fill in an abandoned pit. Here the short-turning ability of the unit and back-dumping feature were invaluable, as the loads were

wheeled around, backed to the edge and dumped completely over the fill.

Contractors, Highway Officials and other dirt movers can get the same performance and economy from Continental Wagon Scrapers.

Write or wire where you can see one in operation.

CONTINENTAL ROLL & STEEL FOUNDRY CO.

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GENERAL OFFICES: EAST CHICAGO, IND.

CRUSHED LIMESTONE Best for All Purposes

We manufacture all sizes of stone suitable for all classes of road building and concrete work where only a high-grade limestone is required.

Quarries opened up in 1912.
Capacity 8000 tons daily.

Four Quarries

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Boxley, Greenville County, Va.

W. W. BOXLEY & COMPANY

Room 711, Boxley Building, ROANOKE, VA.

MASCOT CHATTS

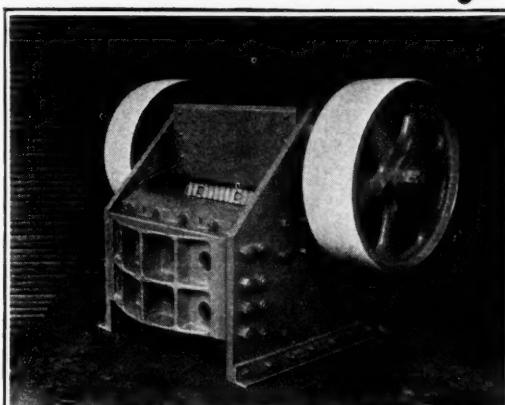
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ROOFING GRAVEL CRUSHED STONE
ASPHALT FILLER DUST



American Limestone Co., Knoxville, Tenn.



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GOOD ROADS CHAMPION ROCK CRUSHERS

The "2 in 1" Good Roads, Overhead Eccentric Type, Roller-Bearing Crushers—reduction to small sizes and fines in one operation.

SPECIALIZING IN COMPLETELY PORTABLE
ROCK CRUSHING AND SIZING PLANTS

Products of
GOOD ROADS MACHINERY CORP.
KENNETT SQUARE PENNSYLVANIA

IRON, STEEL

AND METAL MARKET

THE steel industry is now operating at 47 per cent of capacity, the highest since last April. The steady gain in output for several weeks, which is contrary to the seasonal trend of former years, is attributed to increased buying of fabricators to replenish stocks of raw materials while consumers are anticipating requirements for miscellaneous steel products. The gain in output of the past several weeks has been made despite a slackening in orders from automotive builders. The larger July demand, unexpected in some quarters, has caused steel units to make an upward revision in operating plans for August.

Better Demand In All Lines

Sales have been holding well in the light and semi-finished products, while the evidence of greater interest in heavy steels has given encouragement to the industry. Wire plants are operating at 40 per cent which is high for this time of the year and tin plate mills are operating at about 90 per cent of capacity. Galvanized sheet production increased to 60 per cent of capacity on farm and construction requirements. In fact nearly all lines of the steel industry are experiencing increased demand and receiving more inquiries and the steel makers themselves are increasing stocks of raw materials. The Youngstown steel district led in activity in July with operations at 53 per cent of capacity and ingot production approached the larger volume of output reported in the summer of 1933.

While pig iron production was about 2 per cent less in July than in June, the total output for the first seven months is 2.4 per cent higher than for the corresponding period of last year.

Increased Private Building

Fabricated steel construction makers are encouraged by the gain in private building and especially in industrial and commercial requirements that are developing. Government demand has been slack and the public work relief program has not yet developed any important inquiries. Contracts for more than 21,000 tons of structural shapes were awarded in July. Among recent orders for steel have been those awarded by Southern concerns. The Chesapeake & Ohio Railroad is building 5,125 freight cars and the Norfolk Southern awarded contract for 500 all-steel box cars while the

Missouri Pacific purchased 10,000 tons of rails.

The Bethlehem Steel Company is building a \$5,000,000 cold-rolled tin plate mill at Sparrows Point, Md., and it is reported the Republic Steel Corporation is to rebuild its Stark sheet mill, Canton, O. The Tulsa Steel Corporation, Sand Springs, Okla., resumed operations "with a flood of orders" after being shut down for three months. About 2,000 tons of steel will be required for the 20,000 ton cold-rolled strip mill to be erected at a cost of \$4,000,000 by the American Rolling Mill Co., Middletown, O. Equipment is being furnished by the United Engineering and Foundry Co., and the contract for the construction of the mill was let to Ingalls Iron Works Co.

Increased orders for small tonnages are reported in the Birmingham district, and bids are out on contracts that in the aggregate will call for a large amount of pipe. Sharing in this are the National Cast Iron Pipe Co., which is furnishing 400 tons of pipe for the extension of the waterworks at Greenville, S. C.; the American Cast Iron Pipe Co., and the United States Pipe and Foundry Co., which are active in shipping pipe to the West.

Structural Steel Bookings Larger

The American Institute of Steel Construction reported on July 31 that the shops in its industry operated at 38.3 per cent of capacity during June. The June bookings were approximately 60 per cent larger than the average monthly bookings for the first five months of this year, but they just about equalled the bookings for the same month in 1934. The June shipments were approximately 14 per cent less than the shipments during June, 1934, but approximately 7 per cent larger than the average monthly shipments during the first five months of this year. The backlog of the industry is about 34 per cent less than last year.

Prices Up

Continued improvement in the steel trade has caused a firming of prices with heavy milling steel scrap advancing 25 cents a ton to \$10.50 to \$11 in the Chicago District at the close of the month. The Pittsburgh District reported the most rapid advance in scrap steel prices increasing \$1.25 per ton during the week to \$13 and \$13.50.

Increased Imports of Steel

Imports of steel are said to be 65 per cent greater so far this year over last year when a total of 316,661 tons were bought from abroad. It is estimated that 7,500,000 manhours were lost to American workmen as a result of this competition. The average wage rate for all plants in the American steel industry is 65½ cents an hour, while the average rate in England is 25 cents, in France 20 cents and in Germany 26 cents. In lieu of this the recent ruling issued by the PWA that any borrower of PWA funds for public works projects must purchase their products in foreign countries, if the value of the order is \$10,000 or more and the price 15 per cent less, has caused a wave of protests as this would take a considerable volume of business away from the American steel industry which cannot meet the foreign cost of production.

Steel Construction Meeting

The 13th Annual Convention of the American Institute of Steel Construction is to be held at the Greenbrier Hotel, White Sulphur, W. Va., October 16-18. This will be an import convention as the Institute has been broadening its functions and the meeting comes at a critical time, in the midst of reconstruction and on the brink of industrial recovery. The program of the meeting will be announced later.

Three district offices have been reopened by the American Institute of Steel Construction. At the same time a realignment of district territories has been put into effect. This step was authorized by the Board of Directors in the anticipation of improved business and a greater inquiry on the part of private buyers of fabricated structural steel.

The new district offices are located at Atlanta, St. Louis and Dallas.

District officers and states covered, include:

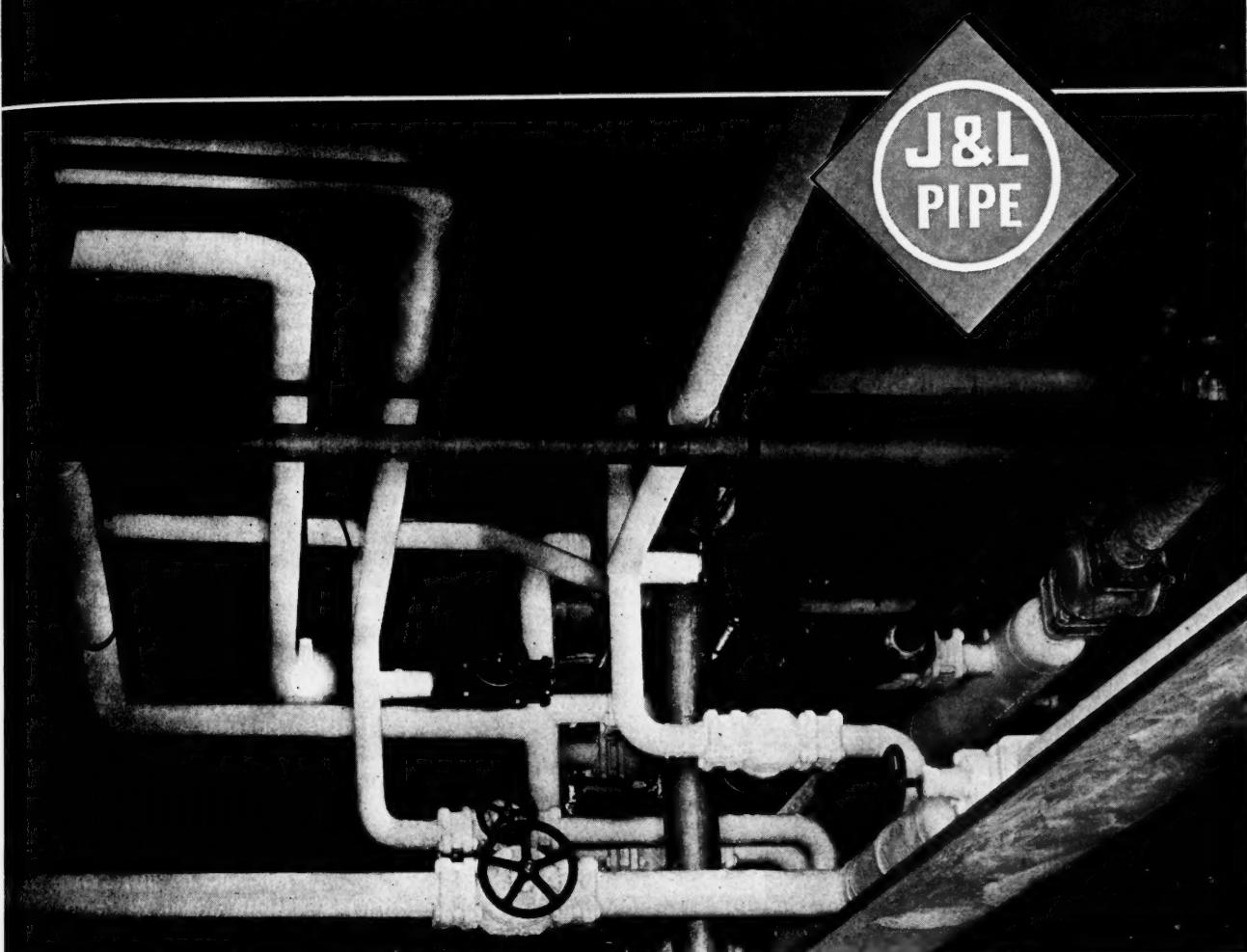
C. R. Bloxton—Headquarters, Room 405, Bona-Allen Bldg., Atlanta, Ga., Virginia, Eastern Kentucky, North Carolina, South Carolina, Tennessee, Georgia, Alabama, Mississippi, Florida, New Orleans, La.

Robert J. Wood—Headquarters, Paul Brown Bldg., St. Louis, Mo., Southwestern Indiana, Southern Illinois, Eastern Missouri, Western Kentucky, Arkansas, Louisiana (except New Orleans).

L. H. Dodd—Headquarters, 3461 Purdue St., Dallas, Texas, Texas, New Mexico.

FOR DEPENDABLE PERFORMANCE

SPECIFY J & L PIPE



Obviously, design and installation are of prime importance in any piping installation. But the pipe itself must have the *capacity* to serve as intended if the full benefits of correct design and skilful installation are to be had. Jones & Laughlin puts into all J & L pipe those qualities which assure the performance *you* want to get from it. All the stages of manu-

facture, from mining raw materials to inspecting the finished product, are so controlled as to secure that nice "balance" which is the essence of quality. The J & L Pipe Catalog is a valuable guide for pipe users. It covers a complete line of seamless and welded pipe in a full range of sizes. A copy will be sent without obligation, on request.



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Bars, Shapes, Plates—Structural Shapes, including Junior Beams and Light Weight Channels—Concrete Reinforcing Bars—Assembled Road Bar Mats—Nails—Tie Wire—Steel Piling—Fabricated Structural Work, including Steel Plate Construction.

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AMERICAN IRON AND STEEL WORKS

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Sales Offices: Atlanta Boston Buffalo Chicago Cincinnati Cleveland Dallas Denver Detroit Erie Los Angeles
Memphis Milwaukee Minneapolis New Orleans New York Philadelphia Pittsburgh St. Louis San Francisco
Warehouses: CHICAGO CINCINNATI DETROIT MEMPHIS NEW ORLEANS PITTSBURGH
Canadian Representatives: JONES & LAUGHLIN STEEL PRODUCTS COMPANY, Pittsburgh, Pa., U. S. A., and Toronto, Ont., Canada

LUMBER NEWS

OF THE MONTH

LUMBER production during the first three weeks of July, despite the holiday, according to reports to the National Lumber Manufacturers Association, averaged above that of any week since April. Lumber shipments and orders since the holiday were above those of recent weeks. Total production of reporting mills during the first three weeks of July was 38 per cent above corresponding weeks of last year; shipments and new orders were each 57 per cent above their respective records of a year ago. The total lumber movement, including that of non-reporting mills, would reveal smaller gains due to the closing of many mills this year that were operating a year ago.

Mill Stock Reduced

Stocks at the mills on July 20 were the equivalent of 134 days' of average production compared with 162 days' stocks a year ago. Stocks have been considerably reduced during 1935 but are slightly heavier now than on the first of July. The relation of unfilled orders to stocks is however, especially encouraging, the percentage being 22 on July 20 compared with 15 on January first and 19 on April first.

Southern Pine Production Above Last Year

Reports to the Southern Pine Association from 145 mills, for the week ended July 27, show: Orders received amounting to 1,435 cars, or 30,138,000 feet, 17 per cent above the corresponding week of last year; shipments aggregating 1,490 cars, or 31,289,000 feet; and production totaled 31,265,000 feet, representing an increase of 58 per cent above the like week the past year.

Production for July was about 6 per cent above new business but 5 per cent below shipments. Reported production for the month was about 40 per cent above that of the comparable period of 1934, shipments were 74 per cent in excess of July 1934 and new business showed 75 per cent increase.

Orders on hand at 152 Southern pine mills on July 20 totaled 79,115,000 feet, or 3,767 cars. While lower than in early June orders have been running substantially higher than a year ago.

Total stocks at 147 Southern pine mills aggregated 371,500,000 feet, or 80 per

cent of normal and 17 per cent below this time a year ago.

Cypress Production Heavy

Cypress production during the first three weeks of July has averaged about the same as shipments but has exceeded new business by about 38 per cent. Production as reported for the week ended July 20 was the heaviest of the year.

Southern Hardwoods reported unusually large production for the week ended July 13, exceeding shipments by 14 per cent and new business by 36 per cent.

West Coast Resumes Operations

West Coast mills are gradually resuming operation as the long-drawn-out strike comes to an end, their reported production, shipments and orders in the week ended July 20 being the heaviest since early May. Western Pine mills have speeded up production in the last two weeks, their shipments in the three weeks of July remaining about the same as in June; new business declining somewhat. Redwood mills reported the highest production of the year to date during the week ended July 20; shipments were also unusually high and orders only slightly below output. The lumber movement in the North has been relatively heavy, the week ended July 20 establishing a new record for 1935 in Northern Pine production and in Northern Hemlock orders.

The lumber price index of the Bureau of Labor Statistics, based upon 1926 as 100, stands at 81.6 for June, as compared with 79.8 in May, and 86.3 in June, 1934. The Southern Pine price average for June shows some advance over May and is 11 per cent above February which is the 1935 low month date.

In addition to good demand for lumber for residential and other private construction, about 300,000,000 feet are going into C. C. C. camp construction and encouraging amounts into other recovery projects. Furniture making which is probably the best market for hardwood lumber, is showing appreciable gains this year over last.

Lumber Rate Case Before I. C. C.

Final submission of the case of the Southern lumber manufacturers and railroads to establish a blanket trans-

continental freight rate of 72 cents per hundred on lumber from the Pacific Coast to all points east of the Illinois-Indiana state lines, has been completed and the entire matter is now before the Interstate Commerce Commission for decision. An early decision is expected.

Establishment of the 72-cent blanket trans-continental rate would effect reductions ranging from 10 to 18 cents per hundred on Pacific Coast lumber to central and eastern territories, and the Southern pine and other Southern lumber manufacturers joined the Southern railroads in protesting this reduction, the lumbermen charging that it would be an unfair discrimination against Southern producers in favor of West Coast manufacturers and would seriously impair, if not entirely destroy essential markets for yellow pine and other Southern woods in the central and eastern sections of the country. The Southern railroads complained that the blanket rate from the Pacific Coast would operate to severely reduce their tonnage and revenue by decreasing movement of Southern lumber to the markets involved.

Trade Promotion Program

What is declared to be the "most comprehensive trade promotion program in the history of the Southern Pine Association," in behalf of Southern Yellow pine, was formulated and adopted recently by the Advertising and Trade Extension Committee of the Association. The Committee also adopted a budget calling for an expenditure of approximately \$7,000 per month to carry on the work and allocated available funds for the various activities comprised in the program. W. T. Neal, of Brewton, Ala., chairman of the committee, presided at the sessions and H. C. Berkes, secretary-manager, of the Association, New Orleans, spoke of some of the more important merchandising problems confronting the Southern pine industry.

Lumber Exports Gain

For the first five months of 1935, exports of lumber, sawed timber and logs show total hardwood and softwood shipments abroad of 733,473,000 board feet, an increase of approximately 16 per cent compared with the January-May period of 1934. May exports while below April figures were 13 per cent above May, 1934, shipments.



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AMCRECO PRODUCTS have long life and low annual cost

1. Carefully selected timber.
2. Incipient decay avoided.
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6. Treatment accurately timed to proper seasoning.
7. Unequalled facilities and personnel of the leading producer.



THE way to get long, serviceable life out of timber is to select AmCreCo full length pressure treated products. AmCreCo creosoted piles, poles, ties or timber have demonstrated their value for the past generation.

A structure built of AmCreCo products retains the original strength of the wood throughout its full life, because termites, decay and other destroying agencies are unable to cut down its effective section. The preservative treatment is permanent and life depends on mechanical wear rather than deterioration of the wood itself.

Let us quote on your creosoted timber requirements.

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AUGUST NINETEEN THIRTY-FIVE

STRUCTURES THAT ENDURE



Salt treated sub-flooring laid on Creosoted stringers and nailing strips, each treated by our Pressure Process.

Statistics show that Wood, when used Untreated, is subject to deterioration through Dry Rot and Insect attack, resulting in costly Replacements and Repairs.

Eliminate the need for these expensive Replacements and Repairs by the use of Structural Timbers preservatively treated by our Pressure Processes with Standard, approved chemicals. Treated Wood has many times the life of Untreated Timbers and will give a lifetime of satisfaction with low maintenance costs.

Our Pressure Treating Plants are conveniently located to promptly serve you at advantageous freight rates.

Detailed Information, Prices and, if necessary, the services of one of our Engineers may be had without cost to you, by writing our territory Sales Office or communicating direct with

THE WOOD PRESERVING CORPORATION

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EQUIPMENT

NEW AND IMPROVED

Light Sinker Drill

Chicago Pneumatic Tool Company, of New York City, has introduced a new light sinker drill particularly suited for shallow drilling in soft or medium formations, with exceptional drilling speed, rotative strength and hole-cleaning capacity. Its small size, light weight and low air consumption make it an ideal drill for use in restricted quarters,



CP-22 Sinker (dry)

maintenance work around industrial plants, flat or upward drilling, and where air supply is limited. It also has application in soft formation metal mines, coal mines and blockholing in quarries. Net weight of the CP-22 Sinker (dry) is 28 pounds, and of the CP-22W (wet) 32 pounds. When equipped with optional single grip D handle, the weight is $2\frac{1}{2}$ pounds less.

Alligator Belt Cutter

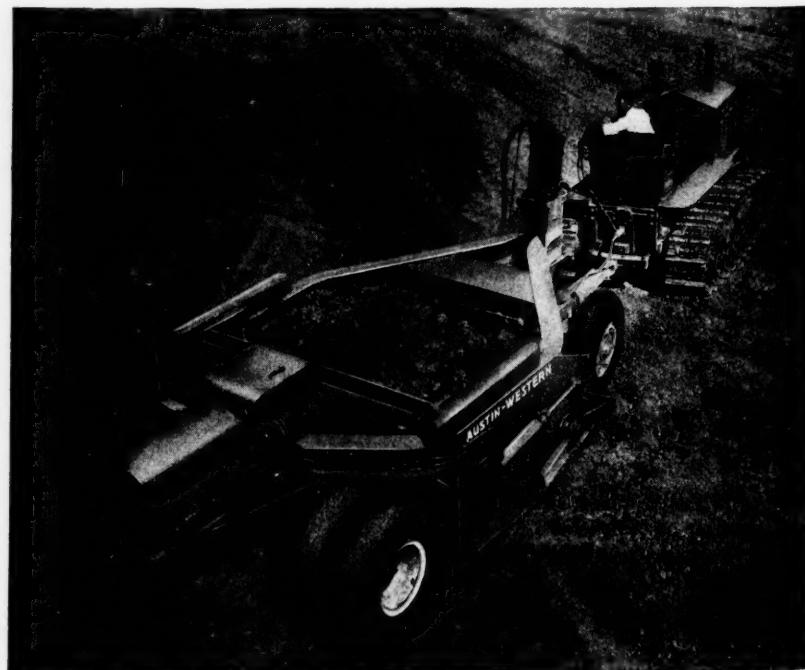
The Flexible Steel Lacing Company, Chicago, Ill., announces an 8-inch flat belt cutting tool employing a new principle in mechanical belt cutting. Instead of cutting from above as in the manner of the conventional belt cutter, the new device cuts from the side across the belt, the knife being mounted on a plunger slot and operated by a direct arm push without mechanical leverage. The knife, of special alloy steel, will cut the toughest and thickest belts up to 8 inches in

width with little effort. The belt is held immovable by an equalizing clamp or hold-down while the cut is being made, the clamp also serving as a guard for the blade. Clamp and frame are built of aluminum alloy.

New Hydraulic Scraper

Special alloy steel is used in construction of the large capacity, 12-yard scraper of the Austin-Western Road Machinery Co., Aurora, Ill. The new machine is self-contained and carries its own motor, hydraulic pump and primary control apparatus. The only connections between the tractor and scraper are the drawbar pin and a small electrical cable. The entire output of tractor power is devoted to pulling the scraper, and the tractor can be disconnected for other work in less than two minutes. A remote form of control consists of small electrical push-down switches, positioned at the operator's elbow and used for actuating hydraulic valves located on the scraper, to control all digging, carrying and unloading. Four hydraulic rams in all are used to raise the lower pan, raise and lower front gate and for moving back of pan forward to unload. Wheels are equipped with Timken bearings and 13.5 by 20-inch pneumatic tires. Frame is supported at three points.

Austin-Western 12-Yard Scraper



"ALL-WAY-GRIP" Floor Plate

The use of "ALL-WAY-GRIP" Floor Plate, recently introduced by the Central Iron and Steel Company of Harrisburg, Pa., is declared to afford maximum traction in every conceivable direction, while patterns may be matched on all sides and ends, thereby affording minimum wastage in shearing. In contrast to the coarse, heavy flooring requirements for which "KNOBBY" plates provide safety against foot slippage, are areas where hazards to women and children must be considered. A miniature of the "KNOBBY" design, which is known as the Central "KNOBBYETTE", is designed to supply this protection. Central non-skid floor plates are made of rolled steel.

Yale "Pul-Lift"

Unusually light in weight, yet extremely rugged, compact and powerful, the Yale "Pul-Lift," manufactured by The Yale & Towne Manufacturing Company, Philadelphia Division, Philadelphia, Pa., is described as "the tool of a thousand uses." The unit is made in $\frac{3}{4}$, $1\frac{1}{2}$, 3 and 6 ton capacities, and is adapted to moving heavy loads in practically every industry. Outstanding features of the device are: the Weston type of self-actuating load brake; easy lifting mechanism; heat-treated drop forged steel hooks; enclosed moving parts, and durability.

FRICK SAW MILLS

Turn your timber into cash most profitably because they cut accurately and produce the highest grade merchantable lumber. A dozen improvements make these mills (already recognized as the standard since the 80's) the choice of sawyers and owners alike. Ask for Frick Saw Mill Catalog 75, just off the press.



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DEPENDABLE REFRIGERATION SINCE 1882

WHY
?

CLEVELAND



TRAMRAIL

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MAKES CLEVELAND TRAMRAIL DIFFERENT

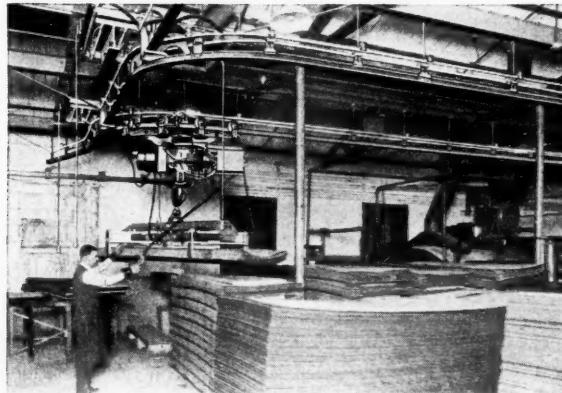
Consult your 'phone directory under
Cleveland Tramrail

CLEVELAND



TRAMRAIL

THE CLEVELAND CRANE & ENGINEERING CO.
WICKLIFFE OHIO



A SERIES of Six Folders is being published picturing numerous applications of Cleveland Tramrail—also giving facts and engineering reasons why over 3500 customers have purchased 15000 Installations of Cleveland Tramrail.

- The first two of these folders have been mailed to 25000 prospective users of Cleveland Tramrail. If YOUR name is not on our list, notify our district representative in your territory or our Home Office—we will add it, and send you back copies of the folders.

Business Improvement

Private construction in the last few months has made definite progress. Inquiry for needed factory equipment has increased. Farm machinery and machine tool production is materially ahead of last year. The prospects for Fall trade are brighter.

Are you ready for the enlargement of your business?

Inquiries invited

Baltimore Commercial Bank
Gwynn Crowther, President
BALTIMORE, MARYLAND

Member Federal Reserve System



ACI producers and their Sub-Agents offer the largest assortment of quality coals in the world, suitable for all industrial, by-product, metallurgical and gas producer purposes. A list of producers and agents will be furnished on request.

Appalachian Coals, Incorporated
Transportation Bldg.
Cincinnati

FINANCIAL NEWS

Electric Output Increases

One of the signs of better business is found in the steadily increasing consumption of electricity. In part this is due no doubt to increasing industrial activity. The curve has been rising steadily each month, just as the sale of utensils and electrical equipment for the home have made amazing advances, especially in the South.

The output is within a point or two of the record reached December, 1929. The largest gain of nearly 34 per cent over a year ago was in the Rocky Mountain states, due in part to the demand by government, which is erecting huge water power dams in that region, and for which the electric power at present is being supplied by private sources.

Exempting Corporation Charities

The House Ways and Means Committee, which has the tax bill before it, has recommended that contributions to charitable organizations by corporations, up to 5 per cent of net income, shall be granted immunity from taxes. The President's proposal to remove the exemption heretofore granted corporations for their charitable gifts, has met with a storm of opposition.

Federal Saving Associations

Up to July 15, charters had been granted to 872 Federal savings and loan associations operating under the Federal Home Loan Bank Board. Their total assets are \$356,000,000. Five hundred and sixty of these associations are newly organized and 312 are converted associations formerly operating under state charters. Approximately 1,000,000 investors are using their facilities.

Gold Clause Suits

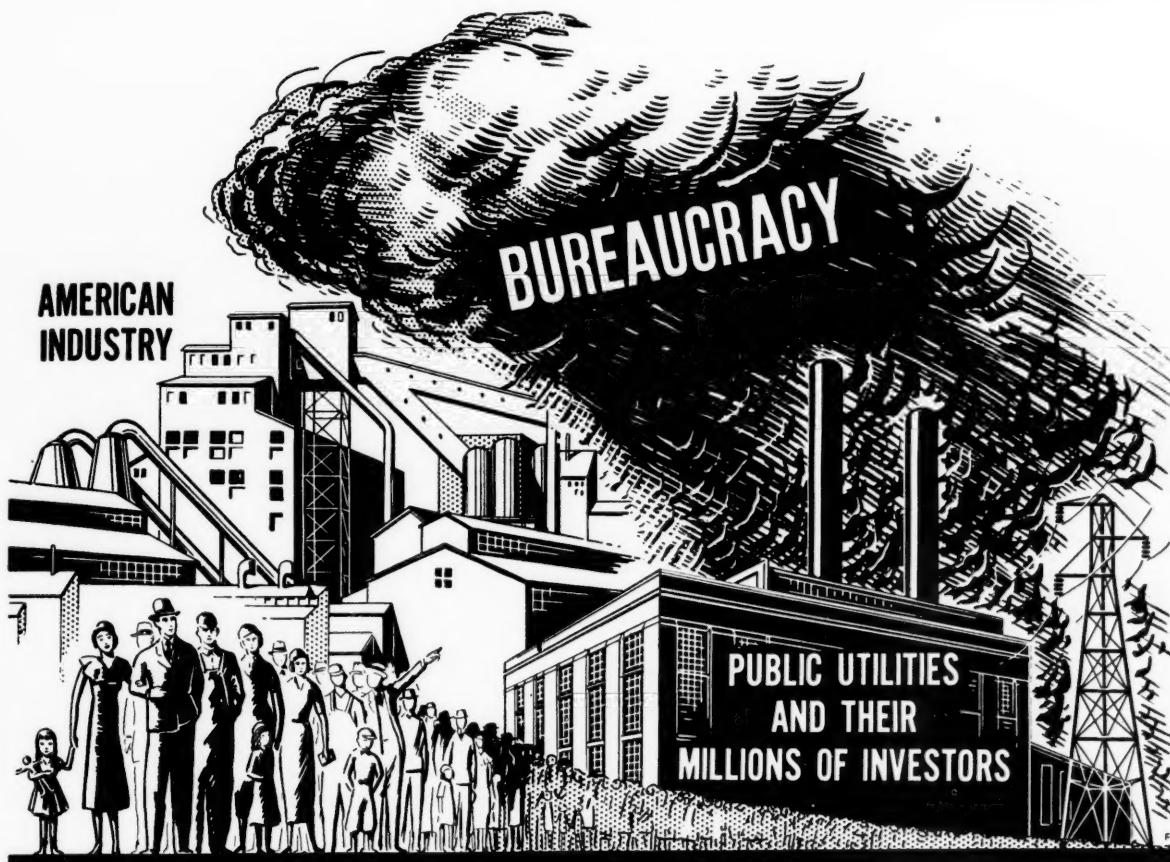
The question whether security holders will be permitted to bring suits against the government for recovery under the gold clause in their contracts, is still pending in Congress. For the administration measure barring these suits, a substitute resolution by Senator McAdoo granting security holders the right to bring suit within a period of six months from the enactment of the measure, is being debated. The Senate Banking committee brought in a favorable report on it, but the argument pro and con may be prolonged.

Undue Influence Charged

The banking bill passed by the Senate and sent to conference committees of the two houses, according to news dispatches, is likely to be delayed. Representative Goldsborough of Maryland, in a speech on the floor, attributed undue influence in the preparation of the bill to the "money powers."

The Tax Bill

The tax bill is uppermost at the moment in the public mind. The proposal to enact class tax legislation for the avowed purpose of sharing wealth, instead of budget balancing, has met with strong opposition. Those who think know that huge taxes will be needed to pay for the vast expenditures made by the government. They demand however a broader base for it than to divide the wealth of a few people which, after all, will be only a drop in the bucket toward paying the carry-
(Continued on page 40)



WHO IS NEXT?

For a long time this company, through published statements, has said that the present attack on public utilities goes beyond this one industry. It is but part of an attack on American industry and American forms of business organization.

This company and other public service corporations have maintained that this issue must be faced and dealt with not alone by public utilities but by ALL business.

"You may be next" said the utility industry. You are! Events of the past weeks—revelations of the "next step" in legislative proposals prove it.

The war of extermination on public utility holding companies is the entering wedge. Next in line stand all holding companies. A deliberate

policy—highly organized and propagandized with tax money—as it works itself out, exposes more and more of the sinister scheme.

In your industry, as in ours, this attack points in the same direction, casts the same shadows . . . paralysis of management; substituting political leap-frog in place of business-like responsibility to customer, investor and community; marauding invested equities of millions of people; up-rooting American principles of initiative, resource and experienced responsiveness in business, and imposing a domineering bureaucracy over human needs and the way they shall be served.

Can industry afford to shut its eyes and feign indifference to this impending menace? Can YOU afford it?

The
COMMONWEALTH & SOUTHERN
CORPORATION

MICHIGAN - OHIO - ILLINOIS - INDIANA - PENNSYLVANIA - GEORGIA - FLORIDA - MISSISSIPPI - SO. CAROLINA - ALABAMA - TENNESSEE

AUGUST NINETEEN THIRTY - FIVE

WATER MAINS AT THEIR BEST!

RELIABILITY

GREAT TENSILE STRENGTH
A HIGH DEGREE of DUCTILITY
LESS INTERRUPTION TO SERVICE
LONGER LENGTHS
ADAPTABILITY for ANY JOINT
LOWER LAVING COSTS
FEWER JOINTS
VARIOUS LININGS AVAILABLE
COATINGS and
GREATER CARRYING CAPACITY



To meet all the exacting demands of modern water main service, and afford both safety and economy for the lives and values affected, the pipe selected must have an unusual number of features—a combination hardly to be expected in one material. But there is such a material. **Steel**—uniform and dependable in character, well fabricated into pipe—is that material. Reliability of steel pipe has been proved by the experience of many years. More and more cities are adopting it for street mains. Its inherent characteristics make it an ideal material for this type of service.

For steel pipe at its best, specify **NATIONAL**, the scientifically designed, expertly made, perfectly standardized product of the largest manufacturer of tubular products in the world. Check the points of merit shown above. **NATIONAL** engineers will be glad to furnish additional information on request.

NATIONAL STEEL WATER MAINS

NATIONAL TUBE COMPANY
Pittsburgh, Pa.

Pacific Coast Distributors—COLUMBIA STEEL CO., San Francisco, Calif.

Export Distributors—UNITED STATES STEEL PRODUCTS CO., New York, N. Y.

United States Steel Corporation Subsidiary

The Tax Bill

(Continued from page 38)

ing charges on the government debt, without counting anything toward paying off some of the principal. We are not going to get far toward recovery until we set about adopting measures of economy. So far they have not come to light.

Balancing the Budget

Mr. Lewis W. Douglas, former director of the U. S. Budget, said in a speech the other day, urging balancing of the budget, that the amount of gold we have is no protection until it is put to use, irrespective of our alleged favorable balance of payments, "which are gradually becoming less and less favorable." He says that, technically, balancing the budget is not a difficult thing to do and advises if the administration would hold its department expenditures to 2 billion 700 millions, if it would appropriate a billion and a quarter dollars for the purpose of making grants to States for unemployment relief, liquidate its obligations on public works amounting next year to about a billion dollars, or in all contemplate an expenditure totaling 4 billions 900 millions; then on the revenue side, if it would convert the Reconstruction Finance Corporation into a liquidating agency and add to the estimated revenue of 3½ billions at least a billion dollars as the result of the RFC liquidation, and further compel the PWA to liquidate its assets, the budget could be brought to within 300 or 400 million dollars of a balance in 1936.

Mutual Savings Deposits

Mutual savings bank deposits approached an all-time record in June when they were within 160 millions of the peak figure of Jan. 1, 1932. Combined assets, according to an announcement of the National Association of Mutual Savings Banks, were also close to the record of that date, and depositors reached the greatest total in 119 years. Deposits amounted to \$9,870 millions, of which more than half was held by the savings banks in the state of New York. The account of the average deposit for the entire country was \$710.25. Rhode Island led on this, the figure per account being \$842.85.

A Judge's Opinion

A Judge of the Probate Court of Sangamon County, Illinois, rendered an opinion the other day which will provoke serious thought. A bank had asked permission to invest its wards' funds in government obligations. Part of the opinion declining the request follows:

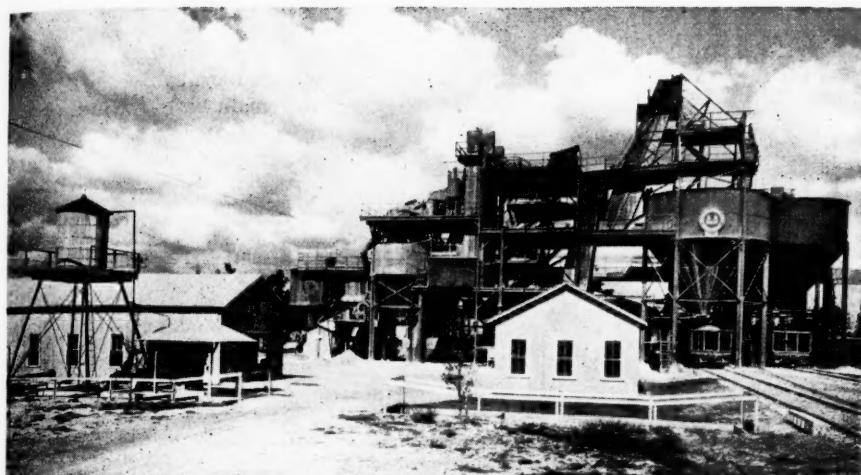
"In view of the fact that the national debt is today almost 29 billion dollars, the highest point in our history, we may safely say that there is a greater saturation of investments in government bonds among our people than ever before, and since we judge the future by the past, a look into the past is sufficient to convince us that just as soon as the rank and file of our people become convinced of the truth of the assertion hereinabove made that we are upon the eve of a period of inflation, there will be a wild rush to convert the low interest bearing investments in government obligations into higher interest bearing industrials and tangible property, and we will witness a repetition of the experience of the early 20's when government bonds sunk below 85 under similar conditions."

Money in Banks

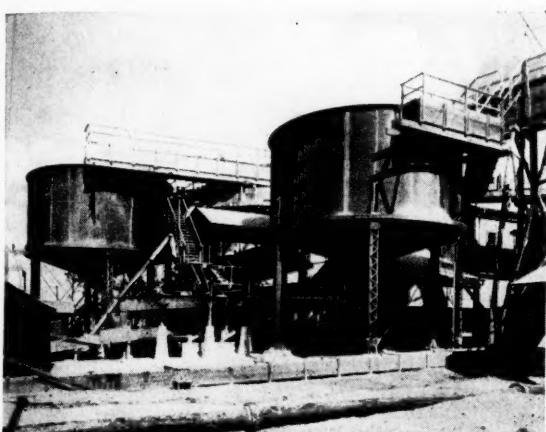
Money in banks continues to pile up due to lack of borrowers. Under the conditions existing, bankers find it difficult to make a profit as for the long look ahead borrowers question many things that affect the future. There is undoubtedly encouraging improvement in a number of lines and a more definite determination on the part of individual interests to move forward.

After all that is the only sure way to recovery.

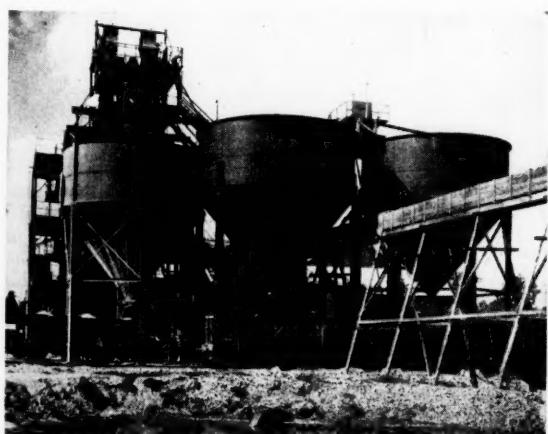
STEEL TANKS AND BINS



Left: General View of the American Agricultural Chemical Company's No. 2 phosphate washer and recovery plant near Pierce, Fla. Pebble phosphate is washed and stored in bins for shipment. Fine phosphate particles are recovered by means of a floatation process, utilizing conical bottom steel settling tanks.



Three 30-ft diameter conical-bottom settling tanks used for recovering phosphate.



500-ton steel bins used to store the recovered phosphate and the pebble rock at No. 2 washer.

Designed to Meet Your Requirements

There is more to building steel tanks and bins than merely fabricating steel plates and riveting or welding them together. Such structures must often be designed especially for the particular service they are to perform.

We are equipped to design and build the exact type of tank or bin you require and, at the same time, give you the benefit of modern construction methods. Our engineers have had actual experience in designing many types of installations throughout the South.

Our shop and field forces are equipped to do both riveted and welded work. We can give you which ever type of construction serves your needs best. All fabrication and erection is done in the South, by experienced Southern workmen.

The accompanying illustrations show a typical installation which we made for the American Agricultural Chemical Co. near Pierce, Fla. The settling tanks have relatively flat cone bottoms, while the concentrate and rock bins have steep-pitched cone bottoms.

Whenever contemplating the installation of steel storage tanks, elevated tanks, bins, smokestacks, gas-holders or steel plate work of any kind, write our nearest office for information and quotations. State capacities and dimensions wherever possible and describe any other limiting features.

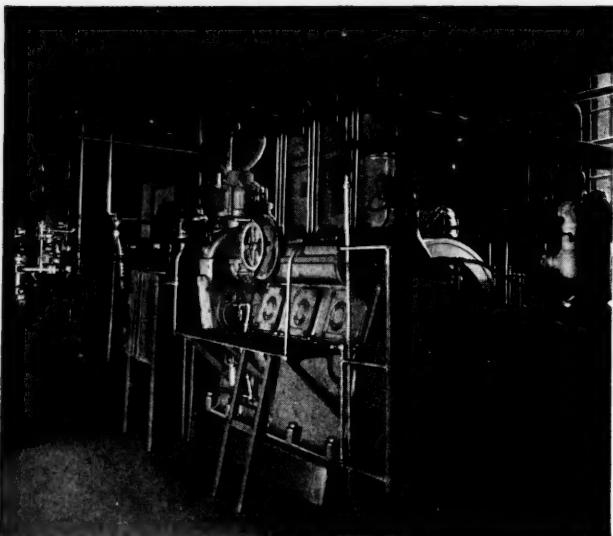
CHICAGO BRIDGE & IRON WORKS

Birmingham	1530 Fiftieth St. North	New York	3313-165 Broadway Bldg.	Philadelphia	1619-1700 Walnut Street Bldg.
Dallas	1408 Dallas Athletic Club Bldg.	Cleveland	2216 Rockefeller Bldg.	Detroit	1510 Lafayette Bldg.
Houston	2919 Main Street	Chicago	2106 Old Colony Bldg.	Boston	1510 Consolidated Gas Bldg.
Tulsa	1611 Thompson Bldg.	San Francisco	1040 Rialto Bldg.	Havana	Edificio Abreu 402

B-432

Plants in BIRMINGHAM, CHICAGO and GREENVILLE, PA.

**Diesel Economy
Is Greatest With
CP DIESELS
80 to 800 H.P.**



USING purchased power, ice production cost at Bergen Pike Hygeia Ice Co., Ridgefield Park, N. J., was running approximately 80c per ton.

Then the company switched to CP Diesels.

As shown above, two 3-cylinder CP Diesels were installed, each rated 110 hp. at 300 rpm., each direct-connected to a 9x9 York Ammonia Compressor and a V-belt driven 35 kw., 1200 rpm. generator to supply power for auxiliaries and lighting. Now, instead of 80c per ton, production cost is approximately 25c per ton . . . a saving of 55c per ton with CP Diesels on the job!

The above is but typical. Not alone in ice plants, but in industrial establishments of every description where power is an important factor in production cost, thousands of CP Diesel horsepower are being generated for ONE CENT per kwh. . . . or LESS! Figure your savings on that basis . . . and investigate CP Diesels!

CHICAGO PNEUMATIC TOOL COMPANY

Engine Builders for More Than 30 Years

Sales and Service Branches All Over the World

6 EAST 44th STREET

• NEW YORK, N. Y.



AIR & GAS COMPRESSORS • ROCK DRILLS
DIAMOND CORE DRILLS • DIESEL ENGINES
ELECTRIC TOOLS • PNEUMATIC TOOLS
VACUUM PUMPS & CONDENSERS

CHICAGO PNEUMATIC

**ARE YOU
AWARE THAT**

THERE are 7,500,000 aliens living in the United States of which 3,500,000 are said to be here illegally. If the number who are not lawfully entitled to remain here is correct, their deportation would reduce unemployment as much as was anticipated from the expenditure of \$5,000,000,000.

INCREASED STEEL imports during the first five months of 1935 have deprived 3900 American workers of full-time jobs and \$2,477,000 in wages. The tonnage of steel imported is 65 per cent above the quantity imported during the corresponding period of 1934. Domestic production of steel during the same period showed a gain of only 3.5 per cent.

THE VOLUME OF IMPORTS through Southern ports increased at a greater rate than exports in 1934. Foreign trade through Southern ports in 1934 aggregated 21,174,834 tons, or 31 per cent of the country's total. Imports amounted to 7,669,529 tons, or 26 per cent of the country's total and exports 13,505,305 tons, or 35 per cent of the country's total. Compared with 1933, the South showed a gain of 2,529,863 tons in total foreign trade of which 1,647,309 tons represented the increase in imports and 882,554 tons the increase in exports.

SALES TAXES have been adopted in 21 states since January 1, 1933, making a total of 24 states now using this form of raising revenue.

RESIDENTIAL building contracts are about 58 per cent more than for the first six months of 1934 and greater than in any like period since 1931.

IN the past 12 months \$7,375,000,000 have been spent by the Federal Government, which, with the \$7,100,000,000 expended in the preceding year, makes a total peace time record spending of \$14,475,000,000 in two years.

ICE CREAM vending machines, using dry ice, have been developed in England. Tests show the ice cream can be kept fresh for 96 hours.

OVER 59 PER CENT of all cotton consumed in the world for the five years preceding 1930 was American cotton. For the year ending July 31, the United States supplied less than 45 per cent of the world's cotton consumption. Our exports are 40 per cent less than they were a year ago and we still attempt to set a price for American cotton out of line with world prices.

IRON ORE mined last year in the United States amounted to 24,587,000 tons and 25,792,000 tons were shipped. Production increased 40 per cent over 1933 and shipments 42 per cent. The South mined 2,352,000 tons and shipped 2,729,000 tons of iron ore in 1934.

AMERICAN average hourly earnings in manufacturing are now only 1 per cent below 1929. Changes in the general level of wage rates in foreign countries show a decline since 1929 in Poland of 26 per cent; Germany 21 per cent; Italy 18 per cent; Belgium 14 per cent, and Canada 11 per cent.

FERTILIZER sales continue to increase in the South. June sales were 31 per cent above last year and the January-June sales are 12 per cent greater than a year ago.

INVENTION of an induction motor which provides direct current without commutators, a revolutionary departure from accepted practices, is claimed by Nikola Tesla, the noted scientist. He reports that a plant is to be built to manufacture the motors which will prove useful in applying electric drive to gasoline automobile and trucks.

COTTON BAGGING for cotton in place of foreign jute and the changing of the method of selling cotton by gross weights to net weight would open a market for more than 200,000 bales of American cotton.

FARM PRODUCTS exports are 40 per cent less than the prewar level.

A 10,000,000 bale cotton crop in the South means a production of about 5,000,000 tons of cottonseed. From this seed is produced 1,500,000,000 pounds of edible oil, 2,500,000 tons of cake and meal, and 1,500,000 tons of hulls. It is estimated this has a food value of equivalent to 1,410,000,000 pounds of dressed pork, 143,000,000 bushels of corn, or 250,000,000 bushels of oats and 1,250,000 tons of hay.

DIESEL POWERED motor vehicles are on the way. A standard stock car with a six cylinder Diesel engine which requires no ignition system nor carburetor, and burning cheap fuel oil, traveled 3,000 miles at a fuel cost of \$8.

NAVAL STORES exports from the South in the first five months of this year were valued at \$6,257,000, a gain of 10 per cent over the corresponding period of 1934.

APPROPRIATIONS for the Department of Commerce, which employs 15,907 persons, for the year beginning July 1 is \$33,981,000, or \$10,000,000 less than the last fiscal year's expenditures.

COTTON under cultivation in China this year is expected to equal the 6,827,000 acres reported in 1934. The area under cultivation in the United States, as of June 1, was 29,166,000 acres, an increase of 4 per cent over last year.

SOLIDIFIED non-explosive gasoline has been given successful tests in operating a gasoline engine by the Guggenheim School of Aeronautics, New York University. The product, known as Solene, is the invention of Dr. Adolph Prussin. Experimenters have been working on solidified gasoline for many years and some 200 patents have been granted.

A total of 2320 new industrial plants were located on the lines of the Pennsylvania Railroad System during the past five years. Last year 540 plants were established which is the largest number since 1929. The low mark was reached in 1932 with 393 additional plants.

HIGHWAY-RAILROAD grade crossing accidents have cost the lives of 522 persons and injuries to 1,587 in the first four months of 1935, an increase of 45 in killed and 104 in the number injured over 1934.

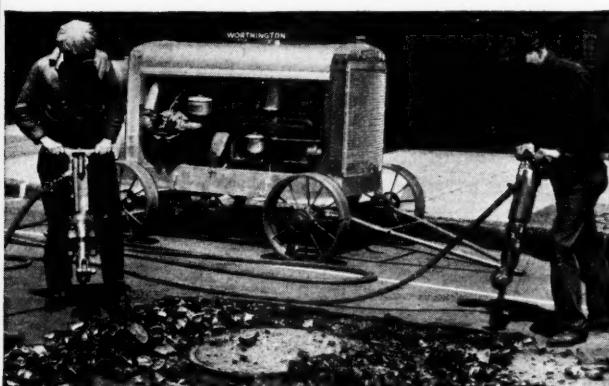
COST OF MOTOR FUEL in 1934 was increased by \$735,000,000 because of State and Federal taxes.

THE AAA in the past 11 months has expended more than \$767,000,000, principally as follows: Rental and benefit payments to farmers, \$535,547,000; removal and conservation of surplus agricultural commodities, \$10,043,000; drought relief, food conservation and disease eradication, \$145,595,000; trust fund operations, \$11,746,000; administrative expenses \$34,401,000; disbursement expenses \$737,000; and tax refunds, \$29,123,000.

MORE AIR... AT LOWER COST



PORTABLE COMPRESSORS



**Aero-2-Stage Portable Air Compressor
operating two No. 10 Master Breakers**

The Worthington No. 10 Master Breaker is a powerful easy running tool for the heaviest demolition work, tamping, pavement ripping, blast furnace work, slag removal, driving sheet piling and kindred uses.

**Greatest amount of air...
for lowest fuel and maintenance cost.
Air-cooled compressor lowers upkeep cost.
Balanced angle design... no vibration.
200° lower temperatures... no carbon
deposits... increased valve efficiency.**

- Feather valves
- 30% reserve horsepower
- Oil bath air cleaners
- 6-cylinder Hercules engine
- Force-feed lubrication
- All-steel welded chassis

**5 SIZES:
60...105...160...210...315 Cubic Feet
ACTUAL AIR DELIVERED**

Available in every type of mounting:

**TOWABOUT, TRAILER, TRUCK, SKID,
POWER TAKE-OFF, RAIL CAR, MINE CAR**

**GASOLINE ENGINE, DIESEL ENGINE
AND ELECTRIC MOTOR DRIVE**

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General Offices: HARRISON, NEW JERSEY
A-3568 Branch Offices in Principal Cities throughout the World**

WORTHINGTON

Modern CHEMICAL Developments

XIX

46. ROSIN SPECIFICATIONS

Each grade of Hercules Wood Rosin is made to conform to chemical and physical specifications and these specifications are adhered to strictly. Costly and time-wasting changes in formulation or processing methods are never necessary once you have selected the proper grade for your needs.

47. DIELECTRIC COATING

The electrical industry should find wide use for Tornesit, the new chlorinated rubber material, because its dielectric properties, which are unaffected by moisture, are not excelled by any protective coating. It is recommended for insulation of cables, condensers, and armatures, and for the protection of other electrical equipment.

48. DEODORANT FOR PAINT THINNER

Solvenol No. 1 will mask the odor of petroleum thinners and fish oils. It can be added to petroleum thinners in all proportions without clouding.

49. BETTER CARTONS

A coat of nitrocellulose lacquer improves the appearance of cartons, makes them resistant to water, grease, dirt, and the scuffing which sometimes results when they rub against each other in transportation.

50. THE BEST PAINT THINNER

Paint ingredients are more completely dissolved in Hercules Steam-distilled Wood Turpentine. Fewer marks are left by the brush when this solvent is used. A recent improvement has narrowed the specifications and made a product having a very pleasant odor.

51. IMPROVED BLACK BLASTING POWDER

Hercules Pellet "D," the new coal powder, produces solid lumps that stand up in handling. Superior shooting qualities alone would insure the success of Pellet "D" but, in addition to these, it greatly reduces gas and smoke, thereby reducing waiting time after a blast, and thus helps to increase production.

52. PENETRANT FOR DYEING

Soluble Yarmor Pine Oil lowers the surface tension of dye liquor, and allows it to penetrate the hardest fibers and the heaviest seams. Yarmor also has dispersing properties and deposits the dye in an even, level manner, producing properly matched shades of depth and brilliance. It is not affected by alkalies or hard water.

More detailed information on any of the above subjects can be secured by filling in this coupon.



HERCULES POWDER COMPANY INCORPORATED

Wilmington, Delaware

I am interested in items numbered:

Name _____

Address _____

Company _____

IN-29-M

INDUSTRIAL NEWS

Joins "Caterpillar" Road Machinery Division

O. Q. Hinds, formerly road machinery supervisor for Allis-Chalmers Manufacturing Company, has joined Caterpillar Tractor Company, Peoria, Ill., as special road machinery representative to contact "Caterpillar" distributors, dealers and their organizations.

Pointer on Plant Maintenance Painting

In a recent article by Roy C. Sheeler, paint engineer of E. I. du Pont de Nemours & Company, Inc., Wilmington, Del., it is pointed out that adequate maintenance of industrial plants, institutions, office buildings, etc., was never more important than now.

General Electric Orders Increase

Orders booked by General Electric Company, Schenectady, N. Y., during the first six months of 1935 amounted to \$104,542,946, compared with \$92,154,642 for the corresponding period in 1934, an increase of 13 per cent, according to President Gerard Swope. Sales billed for the first six months of 1935 amounted to \$94,546,273, compared with \$80,983,093 for the first six months of 1934, an increase of 17 per cent.

Moves Air Conditioning Divisions to Bloomfield

All divisions of the Air Conditioning Department of General Electric Company, Schenectady, N. Y., are now consolidated in one plant at Bloomfield, N. J., occupying space at 5 Lawrence avenue formerly devoted to the manufacture of General Electric industrial control devices.

Broom Factory Offered

To liquidate an estate, T. E. Nelson, executor, Round Rock, Tex., offers for sale the Round Rock Broom Factory, centrally located on two Federal highways and on the Missouri Pacific Railway, 18 miles from Austin. The plant, said to be the oldest and largest in Texas, is fully equipped for a daily capacity of 125 dozen brooms.

Wood Floor Resurfacer

Designed to meet demands in the industrial field for an efficient, dependable and fire-resisting flooring, Stonhard Company, Philadelphia, Pa., announces the New Stonhard Wood Floor Resurfacer, which is declared to be equally suitable for repairing and resurfacing broken, worn and rutted concrete floors and platforms as new floors. Southern sales offices of Stonhard Company are at 552 Murphy avenue, S. W., Atlanta, Ga.

Acquires Hutto Engineering Co.

The Hutto Engineering Company, Inc., of Detroit, Mich., has been purchased by The Carborundum Company of Niagara Falls, N. Y., which will operate the former as the Hutto Machine Division of The Carborundum Company, continuing business at the modern plant in Detroit under the present management. Joseph A. Carlin has been appointed manager and John E. Kline, chief engineer. Pioneering in the manufacture of cylinder honing and grinding tools and machines, the Hutto Company has a wide application for its products.

(Continued on page 46)

The 1935

BLUE BOOK OF SOUTHERN PROGRESS

now available

CONTAINS the latest production figures on the South's principal industries.

It shows increases over each of the preceding two years in practically every line of endeavor and the rate of progress by comparison with previous years.

The annual output of farms, mines and factories of the South is about \$10,000,000,000 in a depression period.

The wholesale trade of the South is more than \$7,000,000,000 a year.

Southern construction gained 34% in 1934 over 1933 and was the largest since 1931.

The value of the South's agricultural output is 13% greater than in 1933 and 50% more than 1932.

These are only a few of the facts gleaned from the pages of the 1935 BLUE BOOK OF SOUTHERN PROGRESS.

Information covering the South's principal manufacturing, agricultural, mining, business activities, resources and markets will be found in the 1935 Blue Book.

An invaluable guide to executives, key men, sales managers and representatives, and every student of the South's progress.

Send us your mailing list and we will mail copies for you at 50c a copy.

MANUFACTURERS RECORD

Baltimore, Md.

The Arundel Corporation

BALTIMORE, MD.

**Constructors and Engineers
Distributors of Sand-Gravel-Commercial Slag**

A COMPLETE ORGANIZATION

Our complete organization with years of experience in successfully executing large construction contracts of various kinds is prepared to undertake the construction of earth, masonry and concrete dams, drydocks, dredging of all kinds, river and harbor improvements, deepening channels, hydraulic filling and rock work, tunnels, railroad construction, sewers and waterways.

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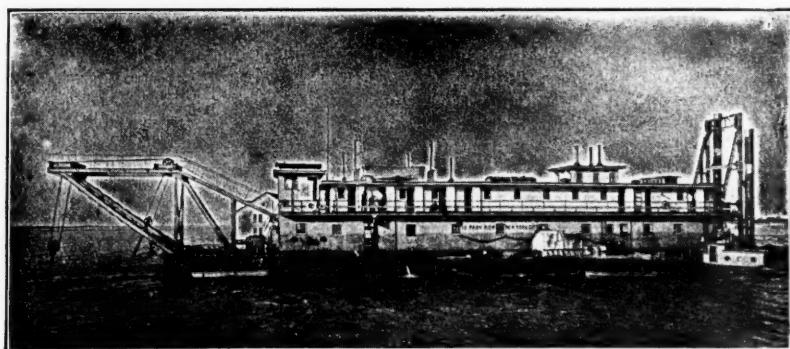
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**FILLING, LAND RECLAMATION, CANALS, PORT WORKS
RIVER AND HARBOR IMPROVEMENTS—DEEP WATERWAYS AND SHIP CHANNELS**



We are especially equipped to execute all kinds of dredging,
reclamation and port works in Southern waters.

Correspondence invited from corporate
and private interests everywhere.

Contractors to the Federal Government

ATLANTIC GULF AND PACIFIC CO.

NEW YORK: 15 Park Row

HOUSTON, TEXAS: Scanlan Building

INDUSTRIAL NEWS

(Continued from page 44)

Manufacturing Industries Becoming Active

In order to meet production requirements for their own goods, the principal manufacturing industries of the country have now been forced into the market for construction and machinery, according to George A. Bryant, Jr., executive vice president of the Austin Co., engineers and industrial builders, Cleveland, Ohio. As proof of this fact, Mr. Bryant cites expenditures involving more than \$10,000,000 for expansion, modernization and equipment of plants where his company is now engaged in active building construction.

Fairbanks Valves.—Printed in two colors, a new 56-page Catalog No. 21, now being distributed by The Fairbanks Company, Boston, New York and Pittsburgh, with factory at Binghamton, N. Y., describes in detail and pleasingly illustrates Fairbanks Bronze and Iron Valves and Dart Unions.

REX Construction Equipment.—The Chain Belt Company, Construction Equipment Division, Milwaukee, Wis., is distributing a bulletin illustrating and describing REX Construction Equipment, covering a complete line of Concrete Mixers, Moto Mixers, Moto Agitators, Cold Patch Mixer, Pumpcrete, Plaster and Mortar Mixers, etc.

Mechanical Combustion Control.—Smoot Engineering Corporation, division of Republic Flow Meters Company, Chicago, Ill., is distributing Data Book No. S-20, covering the subject of Mechanical Combustion Control. The publication discusses such basic problems as: (1) boiler operation; the difference between a control system and mere regulation; essentials of successful mechanical control system, etc. It also presents diagrams showing how mechanical control may be applied to various boilers and fuel firing equipment.

The Iron Worker.—The summer edition of The Iron Worker, a publication for and by the employes of The Lynchburg Foundry Company, of Lynchburg, Va., is unusually attractive and of more than passing interest. The cover page is adorned by a reproduction of "The Liberty Bell's First Note," while striking features are an article on Lynchburg's First Century; The Casting of the Liberty Bell, and others.

Heltzel Steel Form and Iron Literature.—Trade literature now ready for distribution by The Heltzel Steel Form and Iron Company, Warren, Ohio, manufacturers of road building equipment and steel plate fabrication, include: Road Form Bulletin No. 101; Bulletin Q-6 on the Rapid Dowel and Expansion Joint, and Bulletin Q-7 devoted to the Heltzel Leveler Grader.

Frick Air Conditioning.—Air Conditioning With Frick Refrigeration is the subject of Bulletin No. 504-A, published by Frick Company, Waynesboro, Pa. This publication illustrates some important Frick installations of air conditioning, while other bulletins of the Ice and Frost series treat in detail many types and sizes of Frick refrigerating machines available for air conditioning work.

Monsanto Current Events.—The June-July issue of Monsanto Current Events, official publication of the Monsanto Chemical Company, St. Louis, Mo., features an article devoted to the electro chemical operations of Monsanto's newest subsidiary, the Swann Chemical Company, of Birmingham, Ala. Another feature is an article on "Chemicals Play Indispensable Role in Modern Paper Manufacturing."

Automatic Coal Firing in the Home.—Supplementing a picture book covering stokers for commercial installations, Link-Belt Company, Chicago, Ill., has issued Book No. 1469 on automatic coal burners for bungalows and small flat buildings. It is used by salesmen in demonstrating domestic size stokers.

Whipcord Endless Belt.—The Manhattan Rubber Manufacturing Division of Raybestos-Manhattan, Inc., Passaic, N. J., is distributing an attractive bulletin devoted to the company's Condor Whipcord brand of endless transmission belting. It includes technical data to properly determine the length of endless belts, with horsepower tables and specifications.

Worthington Deep Well Turbine Pumps.—Worthington Pump and Machinery Corporation, Harrison, N. J., is distributing an 8-page booklet devoted to deep well turbine pumps. Items of special interest are cross-section views showing details of construction, with explanatory notes; tables of sizes and capacities, and applications of this type of pump.

Group Washing Fixtures.—The Bradley Washfountain Company, of Milwaukee, Wis., is distributing a new catalog presenting a complete line of Bradley Washfountains, Group Showers, Shower and Dressing Room combination units, Foot-Fountains, Drinking Fountains and Street and Playground Showers.

Cooper-Bessemer Diesel Engines.—Recently issued by the Cooper-Bessemer Corporation, Mt. Vernon, Ohio, a new bulletin entitled "Type GA Single and Twin Cylinder Horizontal Diesel Engines" describes and illustrates a Diesel Engine of 25-110 B. H. P. specifically developed for stationary service for the smaller power user. Important features of the new unit are low fuel consumption, quick access to moving parts and improved cylinder construction.

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When you visit the State you will not only feel the enchantment of its sub-tropical atmosphere--you will also appreciate that here is offered an opportunity to make a good living in the healthful "out-of-doors" on a diversified farm.

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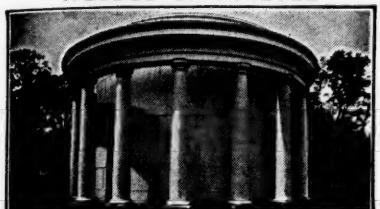
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This applies to field as well as shop built equipment.

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IN STANDARD AND SPECIAL ANALYSES

CENTRAL IRON & STEEL COMPANY...HARRISBURG, PA.

Proposed Work

(Continued from page 28)

N. C., Tarboro — Edgecombe County Commrs. selected E. C. Flannigan, Henderson, as architect for proposed \$60,000 county home.

N. C., Tenn. — President Roosevelt approved \$20,000 allotment for construction of fish hatchery in Pisgah National Forest or Great Smoky Mountains National Park.

N. C., Winston-Salem — City, Harry L. Shaner, Public Works Commr., will apply for PWA grant of \$85,000 for public works program to include \$45,000 for sewer extension, \$65,000 for water mains, erect storage tank in Trade St., etc.

N. C., Winston-Salem — City, Harry L. Shaner, Public Works Commr., preparing to ask PWA funds for \$190,000 street, sewer and water improvements.

S. C., Charleston — Board of School Commrs. have petitioned General Assembly for authority to issue \$162,000 funds to enlarge public school system.

S. C., Charleston — Merritt Dredging Co., Charleston, low bidder at \$70,948, for dredging 9 ft. channel in intracoastal waterway in cut across Hutchinson and Ashe Island between Ashepoe and Coesaw rivers; Hill Dredging Co., Ventnor, N. J. low at \$32,257, for dredging 345,000 cu. yd. in Shipyard Creek.

S. C., Clemson College — Clemson College has applied for \$800,000 PWA funds, including \$400,000 for agricultural building on college grounds in Pickens and Oconee counties and \$400,000 for student dormitories; Dr. E. W. Sikes, president; J. C. Littlejohn, Bus. Mgr.

S. C., Columbia — President Roosevelt approved \$37,500,000 Santee-Cooper river power and navigation project; grant of forty-five per cent of est. cost with balance of \$20,625,000 to be loan; construction work to begin in about 60 days (probably take 2 years to complete); Mayor Burnet R. Maybank, Charleston, is Chrm. of Sanatee-Cooper authority which will construct and control the project; Murray & Flood, 369 Lexington Ave., New York City.

S. C., Columbia — State Highway Coms., Ben M. Sawyer, Ch. Commr., has been authorized to proceed with \$2,700,000 road construction program.

S. C., Greenville — Greenville County, L. B. Aull, Jr., Engr., plans road improvement program, involving repairs and resurfacing on 106 miles of surface treated roads; \$180,000 PWA funds applied for.

S. C., Walterboro — South Carolina Power Co., Columbia, plans installing rural power line from Walterboro to Canadys, distance of 9 miles; also plan converting single phase 2-wire line from Bamberg to Cope with a 3 phase.

Tenn., Knoxville — City, Hal H. Hale, City Engr., has plans nearing completion for proposed \$180,000 West Hill Avenue viaduct.

Tenn., Nashville — State, Gov. Hill McAlister, considering \$750,000 supreme court building; C. K. Colley & Son, Archts.; 3 stories, granite base, white stone exterior.

Tenn., Nashville — Dept. of Highways and Public Works, D. W. Moulton, State Maintenance Engr., soon starting work on farm-to-market road projects in 18 counties.

Tex., Anahuac — Chambers County has selected Cornel G. Curtis, 219 Archway, Austin, as architect for \$175,000 courthouse to replace burned structure.

Tex., Beaumont — E. P. Greenshaw, Little Rock, Ark., erect dwelling Voth Rd. opposite Gold Hill Gardens; cost \$30,000; N. E. Wiedemann, Archt., Beaumont.

Tex., Brownsville — W. G. Willman, Chrm. Bd. of Commrs., Brownsville Navigation Dist., call for bids in about 30 days, for 2 conc. wharves, each 420 ft. long with trestle approach; transfer sheds in rear each 400 ft. long, 120 ft. wide with conc. receiving platform, 10 ft. wide; struc. steel framing; corr. iron walls; wood, tar and gravel roof; 2-story office; bids also called for additional open wharf 400 ft. long; and on creosoted pile timber oil terminal; approximate cost \$400,000; Robt. J. Cummins, Engr., Bankers Mortgage Bldg., Houston.

Tex., Dallas — D. & B. Pump & Supply Co., L. C. Scott, Sales Mgr., plans \$100,000 expansion program at Love Field and 90x70 ft. addition to present factory 7628 Maple Ave., as well as rebuilding present plant and installing new equipment; all steel construction; install modern machinery for manufacture of sucker rods, pumps and fittings; in addition to Dallas expansion program, company plans building service shops in major Midcontinent fields; D. & B. Pump & Supply Co. is a division of Emsco Derrick & Equipment Co., 6811 S. Alameda St., Los Angeles, Calif.

Tex., Fort Worth — West Seventh Realty Co., Marvin Leonard, Pres., having plans prepared by W. G. Clarkson & Co., Archts., First Natl. Bldg., for erecting building Houston and W. Seventh Sts., will raze building on site; retain present foundations; stone, marble and aluminum will be used for store fronts.

Tex., Fort Worth — Universal Mills, Gaylord J. Stone, Pres. and Gen. Mgr., rebuild burned portion of plant in Riverside; cost \$200,000; fireproof; capacity of former plant. C. M. Davis, Fort Worth, has contract for clearing site and erecting plant.

Tex., Los Angeles — Bexar County Water Control and Improvement District, No. 6, Los Angeles Heights Terrace, plans installing sanitary sewer; cost \$70,000.

Tex., Mission — Hidalgo Water Control & Improvement Dist. No. 7, E. P. Congdon, Engr., has plans about 75 per cent complete, for \$557,000 improvements; may receive bids in Sept.

Tex., Taylor — City plans replacing present water tower, extend sewer lines and enlarge present sewer plant.

Tex., Wichita Falls — State Board of Control, Claude D. Teer, Chrmn., Austin, have plans completed about Aug. 15 and ask bids about Sept. 1 for psychopathic hospital ward building, Wichita Falls State Hospital; 3 stories, brick and rein. conc., 300x125 ft., tar and gravel built-up roof, tile, terrazzo and cement floors; Voelcker & Dixon, Archts., 913½ Indiana Ave.

Va., Richlands — Appalachian Electric Power Co., has under way \$150,000 improvement program in Tazewell and Buchanan counties; install three 33,000 volt transformers in substation; plans to tie-in the Grundy and Richlands systems.

Va., Richmond — Dept. of Highways allotted \$13,500,000 in Federal and State funds for road construction and grade crossing elimination; includes \$3,700,000 Federal funds for grade crossing elimination; \$3,600,000 Federal work relief funds for road construction; \$2,400,000 Federal Aid appropriation and \$2,400,000 State funds.

Va., Richmond — Continental Baking Co., 10 S. Jefferson St., erecting storage and cake shop building; cost \$50,000 with equipment; completion Sept.

Va., Warrenton — Fauquier County, Judge J. R. H. Alexander has approved election called for Aug. 13 on construction of \$70,000 school; 2 stories, brick exterior, conc. foundation, metal sash; L. P. Smithy, Archt., 112 Kirk Ave., W., Roanoke, Va.

Bids Asked

Ark., Fort Smith — Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 26 for \$375,000 post office and court house.

Ark., Walnut Ridge — Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 29 for \$61,000 post office.

D. C., Washington — Treasury Dept., Procurement Division, Public Works Branch, opens bids Aug. 13 for constructing Dept. of Agriculture building bridges; W. E. Reynolds, Asst. Director of Procurement.

D. C., Washington — Treasury Dept., Procurement Division, Public Works Branch, opens bids Aug. 13 for rewiring old post office and installing lighting fixtures in extension, remodeling and enlarging.

Fla., Miami — Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 15 for air conditioning for court house and custom house.

Fla., St. Petersburg — Following are prospective estimators on construction of units A, B and E, Coast Guard Air Station, bids to be opened Aug. 14 by Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C.: Doyle & Russell, Central National Bank Bldg., Richmond, Va.; Kreimborg & Son, 304 Montclair Ave., Ludlow, Ky.; English Construction Co., 157 Plain St., Lowell, Mass.; G. A. Hanson Co., Box 2972, Tampa, Fla.; Virginia Engineering Co., Nelson Bldg., Newport News, Va.; A. Farnell Blair, Rockingham, N. C.; Ring & Topping, St. Petersburg, Fla.; Dominion Construction Co., 813 W. Broad St., Richmond, Va.; Tidewater Construction Corp., Box 57, Norfolk, Va.; North American Construction Co., Jacksonville, Fla.; Batson-Cook Co., West Point, Ga.; Algernon Blair, Montgomery, Ala.; Ed. S. Moore & Son, Times Bldg., St. Petersburg, Fla.; E. T. Clauson, 1221 15th Ave. No., St. Petersburg, Fla.; B. E. Clarkson, Power & Light Bldg., St. Petersburg, Fla.; Weinstein Construction Co., Box 52, Johnson City, N. Y.; A. C. Atherton Co., 1791 Howard Ave., Chicago; Fiske-Carter Construction Co., Greenville, S. C.; Paul Smith Construction Co., Pahokee, Fla.; Upchurch Construction Co., 210 Pollard St., Montgomery, Ala.; Frainie Bros., 19 W. Franklin St., Baltimore; Byrne & Co., 1823 Fairbank Rd., Baltimore; Steel Construction Co., Birmingham, Ala.; Lecourto-Parkers Construction Co., 4121 Forest Park Blvd., St. Louis; B. L. Knost, Pass Christian, Miss.

Fla., St. Petersburg — Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 12 for construction of units A, B and E, Coast Guard Air station; postponement of bids scheduled to be received Aug. 14.

Ga., Atlanta — Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 19 for installing elevators, lifts and remodeling old post office and court house; bids Aug. 19 for installing new brass water piping, heating apparatus.

(Continued on page 50)

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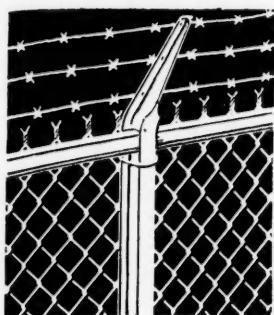
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It is significant that leading fence manufacturers have standardized on Open-Section Beam line posts in Chain Link Fence Construction. It is further significant that STEWART is the ONLY Manufacturer that has succeeded in extending "Beam" construction to top rail and terminal post use as well as for line posts.

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Bids Asked

(Continued from page 48)

Ga., Decatur—Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 12 for construction of \$75,000 post office.

Ga., Rome—Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 19 for new heating boiler and heating changes in post office.

Miss., Oxford—Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 29 for extending and remodeling post office.

Tex., Austin—State Board of Control to ask bids about Sept. 9 for construction program at various eleemosynary institutions estimated to cost \$1,114,000.

Tex., Fort Sam Houston—Capt. A. F. Dersimer, Constructing Quartermaster, San Antonio and Vicinity, opens bids Aug. 14 for construction of station hospital, Argonne Heights; 7 stories, 418 beds; main building 217 x 52 ft., wing 105 x 102 ft.; rein. conc. frame, brick with terra cotta trim; tile and built-up roof; Bansbach Brothers, 252 W. Josephine St., has contract for spread-footing foundation at \$132,900.

Tex., Fort Sam Houston—Capt. A. F. Dersimer, Constructing Quartermaster, San Antonio and Vicinity, opens bids Aug. 14 for non-commissioned officers' quarters, conc. paving and utility shops and garage.

W. Va., Huntington—Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 13 for post office extension; postponement of bids scheduled to open July 29.

W. Va., London—U. S. Engineer, Huntington, opens bids Aug. 16 for construction of two 2-story brick and tile dwellings, lock and dam No. 3, Kanawha River.

W. Va., Wheeling—Treasury Dept., Procurement Division, Public Works Branch, Washington, D. C., opens bids Aug. 12 for extension of post office; postponement of bids scheduled to be received July 26. Alan B. Mills, of Pennington, Lewis & Mills, 250 Park Ave., New York, and George B. Cunningham, Wheeling, architects.

Contracts Awarded

Ala., Mobile—Taylor-Lowenstein & Co., awarded contract to Mobile Steel Co., 150 Knox St., to construct 5000 bbl. warehouse to be used for handling turpentine.

D. C., Washington—D. C. Sanitary Improvement Co., has permit for three, 2-story brick apartments, 310, 314 and 319 Delafield Place, N. W.; cost \$30,000; Jos. G. Herbert, Archt.

D. C., Washington—S. Johnston Mason, has permit for 2-story, stone and brick apartment, 1502 Twentieth St., N. W.; cost \$30,000; Davis, Wick Rosengarten Co., Inc., Bldr., Met. National Bank Bldg.; Gertrude Swayer, Archt., 744 Jackson Place, N. W.

Fla., Coral Gables—J. Y. Gooch & Co., 501 Professional Bldg., low bidder at \$37,401, for dwelling, garage and servants quarters, N. Greenway Drive and Casilla St., for A. T. Eldredge, 67 Glen Royal Parkwy.; Kiehnel & Elliott, Archts., 930 Seybold Bldg., Miami.

Fla., Miami Beach—John B. Orr, Inc., 25 N. E. Twentieth St., Miami, has contract at \$34,000 for dwelling, garage and servants quarters, N. Bay Rd. and 29th St., for George S. Hasbrouck, Jr., 4124 N. Bay Rd., Miami Beach; Robt. A. Taylor, Archt., 605 Espanola Way, Miami Beach.

Fla., Panama City—R. N. McEachern, Valdosta, Ga., has contract for theatre for R. E. Martin, Columbus, Ga.; 1-story and balcony; conc. found.; brick walls; tar and gravel roof; struc. steel; plumbing, wiring and heating.

Ga., Atlanta—F. T. Heiftner, Decatur, Ga., low bidder for alterations and additions to store 91 Peachtree St., N. E., for Schwob Clothing Co.; Edwards & Sayward, Archt., 101 Marietta Bldg., Atlanta.

Ga., Macon—R. A. Bowen, Macon, has contract at \$27,921, for additional equipment for filter plant, Burford-Hall & Smith, 140, Edgewood Ave., N. E., Atlanta, at \$45,075, for filter plant.

La., Baton Rouge—State Highway Advisory Board formally approved awarding contracts for projects in following parishes:

Terrebonne—Bridge on Main street at Houma, Vincennes Steel Corp., Vincennes, Ind., \$127,829;

Natchitoches—6.71 mi. grading and drainage structures, Natchez Bayou-Montrose highway, Huth Construction Co., Franklin, \$44,534;

Sabine—5.2 mi. conc., Zwolle-Many highway, Nelson Brothers, Baton Rouge, \$142,534;

Quachita—5.4 mi. surfacing, Brown Paper Mill highway, Reynolds & Sutton, Tyler, Tex., \$71,148;

St. Martin—7.27 mi. asphalt surf., Parks-Breaux Bridge highway, Roy M. Lilly, Shreveport, \$72,742;

Allen—5.57 mi. concrete, LeBlanc-Reeves highway, Mills Engineering Construction Co., Lake Charles, \$107,450;

East Carroll—5.13 mi. concrete, Lake Providence-North highway, Barber Brothers Construction Co., Baton Rouge, \$148,636.

Md., Baltimore—State Roads Com. let contracts for projects in following counties:

Dorchester—Cont. D-74-2-18, PWA, electric wiring system for bridge over Choptank River at Cambridge; Gill & Simpson Electric Co., Inc., Baltimore, \$5,769;

Montgomery—Cont. M-204-1-311—along Colesville Pike from Silver Spring toward White Oak, 1.12 mi. conc., Roberts Paving Co., Salisbury, Md., \$94,073.

Md., Sparrows Point—Bethlehem Steel Co., has under construction mill for continuous production of cold roll strip for tin plate; est. expenditure of \$5,000,000; construction by company's forces, supervised by company's engineers; McClintic-Marshall Corp., Bethlehem, Pa., will fabricate and erect struc. steel framework, involving approximately 5,000 tons material; Mesta Machine Co., Pittsburgh, Pa., has contract for principal mill machinery.

Miss., Goodman—Goodman Gin Co., awarded contract to N. P. Drennan, Lexington, Miss., for 1400 bale capacity cotton warehouse; 84x128 ft.; galv. iron; comp. roof; conc. found.

Mo., St. Johns—Gem Theatre Corp., care of O. W. Stiegemeyer, 4817 Oleatha, started work on theatre 8810 St. Charles Rock Rd.; brick; 2-story front portion, 1-story auditorium; Spuck Iron & Foundry Co., 3145 N. Fourteenth St., and Martin P. Rosenmeyer, 4817 Oleatha, have sub-contracts.

S. C., Blacksburg—C. M. Guest & Son, Anderson, awarded contract for improvement, mill units including general repair to village and boiler plant, for Burton Dixie Corp., main office Chicago, Ill.; conc.; brick, comp. and tar and gravel roof; wood floors; W. C. Burgess, Archt., 2024 S. Racine Ave., Chicago, Ill.

S. C., Columbia—State Highway Dept. let contract to C. G. Fuller, Barnwell, for treatment on 15.4 mi. bituminous road, Route 10, in Greenwood County; \$11,179.

Tenn., Nashville—Board of Public Works let contract at \$95,284 to Algernon Blair, Montgomery, Ala., for construction of Sylvan Park school.

Tenn., Savannah—Volz Construction Co., Baltimore Bldg., Memphis, has contract at \$56,000 for water works.

Tex., Brownsville—Freddell Construction Co., Houston, Tex. and Denver, Colo., have contract at \$325,000 for constructing 90-mile oil pipe line from Samfordyce field, Hidalgo County, to new harbor at Port Isabel; construction to start immediately; line will be 5 1/2-in. in diam. and follow old Military Highway; capacity 11,000 bbl. daily; field construction to start at Samfordyce; two pumping stations will be used one at field and other at middle of line; pipe line will be operated by newly organized Valley Pipe Line Co., T. Frank Murchison, E. M. Clouston, associated with H. M. Hensley, McAllen, V. P. and Gen. Mgr.; soon select site for field storage tanks and primary pumping unit at Samfordyce; two 10,000 bbl. and four 5000 bbl. oil tanks, total of 40,000 bbl. of field storage will be built at proposed rights-of-way.

Tex., Brownsville—Contract let to Wyatt Metal & Boiler Works of Dallas and Houston, for constructing a 5000-bbl. refinery on Port Isabel turning basin site for Valley Port Refining Co., of which G. L. Rowsey, Pres. of Taylor Refining Co., Taylor, is president; est. cost \$200,000; engineers surveying for plant; completion Nov.

Tex., Kilgore—T. L. James & Co., Ruston, La., has contract, work to start soon on 6-story, rein. conc. hotel; cost \$100,000; Albert H. Boren, Allen Bldg., Dallas, and Peters, Strange & Co., Longview, Archts.

Tex., Orange—Clark Brothers Construction Co., Clinton, Iowa, have contract at \$252,000 for canal work and structures, Orange County irrigation system for Orange County Water Co.; Bernard & Gregory, Consil. Engrs.

Tex., Port Isabel—Port Isabel Terminal Co., G. L. Rowsey, of Taylor, Pres., will construct crude oil storage and loading facilities at turning basin site at Port Isabel; est. cost \$125,000; work to be carried on simultaneously with that of Valley Port refinery; Wyatt Metal & Boiler Works, 1901 W. Commerce, have contract.

Tex., Houston—Weingarten's Inc., grocers, have permit for conc. and tile building 1100 Broadway; 132x70 ft.; cost \$25,000; P. M. Marshall, Contr., 943 Euclid.

Tex., Houston—Petroleum Iron Works, Sharon, Pa., have contract for 2225 tons, steel for storage tanks for Shell Petroleum Corp., Shell Bldg., Houston.

Tex., Laredo—Work is soon to start on construction of Laredo high school, M. H. Ryland, Gen. Contr. at \$229,264.

Tex., Olney—McKenzie Construction Co., Smith-Young Tower, San Antonio, awarded contract at \$87,696, for partial construction of water works; equipment includes settling basins, pumps, chemical equipment and 10-in. water main from Lake Olney; C. A. and J. W. Vilbig, low at \$32,000 for dam and spillway; contract for elevated water tank not awarded.

W. Va., Charleston—Rosenblatt & Hunt, 1026 Quarrier, have contract to install Carrier Air Conditioning system in Ritz Restaurant, 863 Quarrier St.

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PIER SHED

Shown above is the new Pier Shed recently constructed by the Port Commission at Stockton, California.

Embodying only the most modern features of construction and providing fireproof wharfage facilities, the Commission naturally selected steel for the framing.

The steelwork for this great development was manufactured in our Birmingham plant and erected by our forces.

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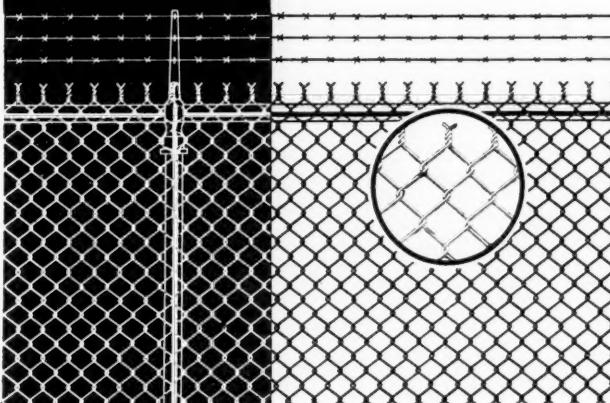
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The New Deal Viewed by Southern Papers

(Continued from page 23)

JACKSONVILLE TIMES-UNION:

"Now, unless there can be something done to check the thing in the courts, the government, through passage of the Tennessee Valley Authority measure is about to be plunged directly and extensively into business; with everything set as no doubt intended by the promoters of the scheme for successful competition with private industry and enterprise, to the possible ultimate of driving the latter out of the picture."

THE ROANOKE TIME:

"Speaking before a national convention in Baltimore recently, former Governor Albert C. Ritchie of Maryland, minced no words in asserting his lack of faith in the New Deal, charging that 'it has not worked, and it is on the rocks.' He defended the Supreme Court and the Constitution from criticism at the hands of the President's supporters, declaring that they 'have worked for a century and a half and will keep on working if we preserve them.'

"Of the spending tendencies of the Federal Government he said, 'it is also true that we cannot go on spending more than we take in. Balancing the national budget may not be a spectacular thing to talk about, but it is an essential thing to do.'

"The brain trusters around the President will be outraged by Governor Ritchie's words, but the country will say a fervent Amen. What he says is sound sense and sound Americanism—and both, we make bold to say, are sorely needed at Washington today."

NASHVILLE BANNER:

"The most cursory survey of the colossal bureaucratic system which has been built up in the last two or three years, with nearly 1,000,000 individuals on the Federal payroll and of appropriations from small amounts to billions, for every purpose having a conceivable connection either with what is termed recovery or reform, begets the impression which closer inspection of the situation develops into the conviction that many millions could be saved to the Federal Treasury every year without any impairment of the efficiency of government or of the effective administration of real recovery measures."

BLUEFIELD (W. VA.) DAILY TELEGRAPH:

"The present administration has put more handicaps on the Southern States than they have suffered under any other regime in fifty years.

"The AAA and the NRA, the cotton control law, the handicaps of small industries such as canneries and struggling small factories, the discrimination against their coal mines and power plants, etc., etc."

THE MIAMI HERALD:

"At this juncture the Congress must decide whether the United States is to confine government to simple service, or to expand it like some European dictatorships to get a political

death grip upon all industry, upon thrift, and private initiative. We cannot have both. We must either stop short of taking this latest step, and begin the march back to a simpler government, or go on to a complete dictatorship."

THE HOUSTON CHRONICLE:

"Adoption of the Bankhead measure was justified at the time as an emergency measure, provided it was in line with the constitution, for it was the only hope then held out that the production of a huge cotton crop would be forestalled, an event which if allowed to happen, would have sent the price of the staple to a ruinously low level. The rental program obviously had failed to meet the needs of the situation. As things turned out the great drouth of last summer solved the reduction problem, and we have not yet had an effective test of either the rental program or the Bankhead bill as a crop-reducing device.

"The *Chronicle* approved the bill last year, with the understanding that it was meant to serve for two years only, and that by the end of that time a sounder and more permanent program would be elaborated. Now, however, we find the original problem bolstered by a Federal loan policy which is little more than a subsidy out of the Federal treasury, and an extension of the Bankhead act for another year."

THE GREENVILLE (S. C.) NEWS:

"As the emergency which brought it about gradually passes the governmental machine must be dismantled in proportionate degree. And we have certainly come to the point where economic conditions justify, and demand, a reversal of this tremendous expansive process. The country looks to the Democratic party and the administration to bring about the reversal. If it does not speedily do so it will be severely criticized and condemned by the country—and justly so."

TULSA DAILY WORLD:

"Our idea is that abatement of big spending is the surest and sanest way to the reduction of the deficit and the balancing of the budget. Maybe we are hopelessly old-fashioned, but we still think finance, even governmental finance, should be subject to the same old rule of cold, hard facts."

ARKANSAS GAZETTE:

"The debt of the United States Government has now reached the all time peak of more than \$29,000,000,000, against the high point of \$26,596,701,648 that followed the World War.

"The real danger is not that the debt may swamp the government. The danger is in ideas that the government can pay its debts in some way other than by taxing the people to get the money.

THE CLEVELAND (N. C.) STAR:

"We do not believe any taxpayer objects to bearing a just share of governmental expense of city, state or nation as long as these governments are conservative in expenditures.

"Objection does come when governments spend in a wild, reckless manner, making useless, unnecessary and extravagant expenditures."

SAVANNAH MORNING NEWS:

"It is apparent that politics, rather than an effort toward budget balancing, forms the basis of the purposes of the 'soak-the-rich' proposals. If Congress should approve the tax schedules recommended, they would bring to the Treasury an additional \$340,000,000, as contrasted with an anticipated deficit of four billions, five hundred millions. This brief summary of the budget situation lends force to Senator Vandenberg's recent statement: 'If we are to have a new tax bill, let it be a real tax bill and not a mere political appeal to mass prejudice.'"

SOUTHWEST VIRGINIA ENTERPRISE:

"The growing political tendency to undermine the morale of the nation by destructive legislation and taxation, is the greatest menace to recovery and future prosperity."

THE MOBILE REGISTER:

"It is a matter of common knowledge that Congress has not been in full control of its constitutional powers, nor has it been meeting fully its constitutional obligations, during the last few years."

MEMPHIS COMMERCIAL APPEAL:

"With numerous rather anomalous and ill-assorted groups yelling either for or against the Constitution of the United States, it might be easy for the fundamental issue to be lost sight of completely. It will be well, indeed, if the American people can keep in mind the fact that the real point under discussion is whether this country shall be ruled in constantly increasing measure by executive decree or in accord with the long established orderly system of checks and balances prescribed for us long ago. * * * We should think long and hard before we surrender any portion of that sort of liberty."

THE BIRMINGHAM AGE-HERALD:

"The reluctance of states to vote away any of their rights as given to them by the constitution will be something to consider if farmers and workers start agitation for an amendment that would give them benefits they believe the Federal Government could give but which states have not given."

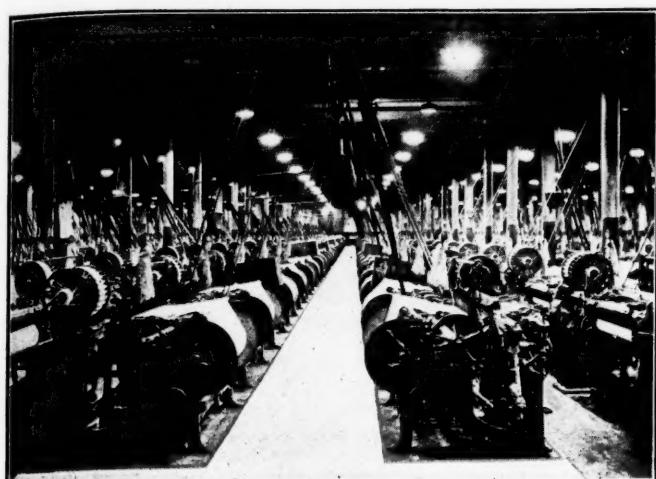
LYNCHBURG NEWS:

"There can be no doubt that the government's position would be strengthened by a law which would destroy the right to sue. The slamming of this door is, of course a natural corollary to the past act of abrogating the gold clause. The question seems to be that of making one false step safe by the taking of another. Had the original measure been sound there could have been but little reason for another designed for its protection. It would have needed none."

THE (GREENSBORO, N. C.) TEXTORIAN:

"The people of the United States are just now waking up to the fact that they have been on a gigantic spending spree. Never did they use their public credit so freely. But the day of reckoning is here. The charge accounts are coming due and the payments will have to be made."

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WHICH WAY?

By
Harry B. French

WITH so much loose and doubtful legislation being enacted by the New Deal Congress, legislation which is dictated by the White House and marked "must" or "desired", the country faces a serious situation, wherein many serious consequences may develop.

In every town and hamlet of the land it is being realized not only by the man in business, but the man on the street, that the conception on the part of their President of the functions of the Government of the United States is far different from the conception of these functions by the average citizen. They remember the solemn oath taken upon election:

"— to the best of my ability to preserve, protect and defend the Constitution of the United States."

Since the NRA decision by the Supreme Court, some amazing statements by the Chief Executive have been quoted by correspondents attending White House press conferences, but there has been no evidence expressed or implied to "preserve, protect and defend the Constitution of the United States." On the contrary, close observers express the opinion that the intention is to change the Constitution and through "must" legislation, which is very probably illegal, make a sufficient number of voters, who may be momentary beneficiaries, dissatisfied with the Constitution and the Supreme Court.

It is not too much to say that the people of the country have a sense of outrage by this procedure. They cannot explain the weakness manifested by too many representatives in Congress yielding to it.

In the meanwhile, the country pauses in dismay. Even those who are beneficiaries of Government largess are beginning to realize that it is a temporary expedient and it is not altogether a square New Deal which creates an enormous debt that future generations will have to struggle with.

People are justified in inquiring, and their inquiries are becoming more articulate and persistent every day, as to the necessity of changing the Government of the United States over to a dictatorship like that of Russia or Germany or Italy in order to recover from a depression.

Protests in number and volume are

being heard against the purpose which is all too evident of placing private industry under Government control and using taxes for social revolution, as well as encouraging the enactment of legislation that it is believed, the Federal law department recognizes as unconstitutional.

On May 27, 1935, a member of the House of Representatives said:

"We have reached a point in this country when the question of who is to run the country must be determined. Is it to be the Congress, elected by the people, or is it to be nine old men who hold office for life and who are not responsible to the people? This is the biggest question before the country, and if our generation does not solve it, the next one will."

A few days later a statement of the President, quoted from the White House, reveals the same thought, but omits the reference to "nine old" men. The press reported it as follows:

"This citation brings the people up squarely to the big issue, and the question of how it is to be solved. Does it mean, he asked, that the United States Government has no control over any national economic problem? The question is whether we are relegated to the horse and buggy generation, and though a Constitutional amendment may not now be the answer, he says, that decision must come from the people within the next five or six years."

The President, in a speech at Baltimore in October 1932, when a candidate for office, said:

"After March 4, 1929, the Republican Party controlled all branches of the government and the Supreme Court as well."

President Hoover replied to this in a speech in Indianapolis a few days later:

"Aside from the fact that the charge is an atrocious one, there is a deeper implication in that statement. Does it disclose the Democratic candidate's conception of the functions of the Supreme Court? Does he expect the Supreme Court to be subservient to him and his party?"

To this the answer of the Chief Executive is being written in the pages of American history.

"I hope your committee will not permit doubts as to constitutionality, however reasonable, to block the suggested legislation."

Some commentators attribute this to a state of mind induced by hot weather or bodily fatigue from overwork, or perhaps inability to distinguish between what was regarded in '32 as a national emergency and the problems of the country today. Business it is believed would

move rapidly along the path of recovery except for the interference and obstructions being created at Washington. Whatever may be the reason, it is time to drive home the facts to the people of America so that they may be alive to the seriousness of our national position, and that they in turn may tell of the dangers ahead to those who have temporarily benefitted by the "rain of checks".

Rip Van Winkle, Wake Up!

(Continued from page 18)

lie utility field. Huge funds have been set aside for financing emergency housing, resettlement of farmers, subsistence homesteads, colonization of Alaska and planting the great plains forest belt.

The AAA has authorizations to spend more than \$1,500,000,000 in subsidies to farmers, and the Secretary of Agriculture is pressing for powers of practical dictatorship over farm marketing; authority to fix prices, and to say where, to whom and in what quantities agricultural products shall be sold. And that recalls the Grain Stabilization Corporation, of fragrant memory; it was set up a few years ago to do these same things for various farm products, and was given a \$500,000,000 revolving fund to operate with. When it was wound up it was found to have lost approximately \$350,000,000 of the \$500,000,000 with which it started.

Following in Footsteps of Moscow

Even so incomplete a survey as the foregoing must suggest how rapidly the Government is taking over business, property, services, that heretofore have been left to private enterprise. By a different technique, it is following in the footsteps of Moscow in nationalizing pretty much everything. The Guffey coal bill aims to have the Government take over the bituminous industry; and right on the heels of that comes the Thomas oil bill, to do the same for the oil industry. One must doubt, in view of the rapidity with which these measures have followed one another, where the end will be, or whether any end is to be expected short of the complete nationalization of business, property and enterprise; leaving us all regimented as civil service employees with the politicians and their bureaucratic underlings as our bosses.

It is a prospect that can well give pause to believers in the system to which we had supposed this nation was committed. It is no distant prospect, either; the thing is taking place, and unless Rip Van Winkle awakens right soon, he might as well go on snoring. In this case Rip Van Winkle is the American business community.

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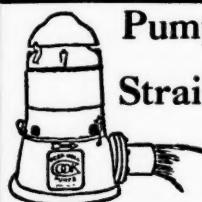
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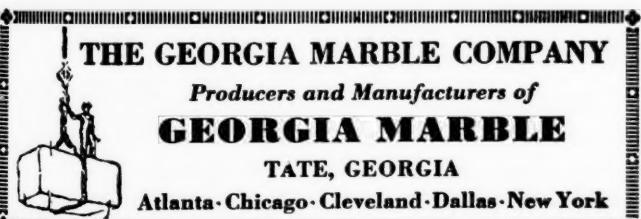
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Improved Paving

AMONG street improvements being made in the South are those using new and reclaimed brick. Two 45-foot traffic ways on Mulberry Street, Macon, Ga., the main thoroughfare of the city, have been provided with a reconstructed pavement to insure a smooth anti-skid surface under the supervision of the Georgia State

Mulberry Street, Macon, Ga.



Highway Board and the U. S. Bureau of Public Roads.

The new unfilled brick are shown in the foreground and the old relaid brick are being filled in the background. A portion of the existing pavement was granite block on a concrete base, the remainder being repressed brick on a concrete base. A major part of the old brick, some of which had been in service 39 years, were salvaged, turned over and relaid on the old base. The new bricks were laid on the old granite block which was placed flatwise in cement grout as a base course. The filler for both old

and new brick was asphalt which was removed from the surface after pressure spraying with a calcium chloride solution. There were 11,422 square yards of relaid brick and 11,008 square yards of new brick paving on this job.

Henry E. Newton is State Highway Engineer of Georgia and E. J. Smith, Division Engineer with headquarters in Macon. C. D. Snead is district engineer of the Federal Bureau of Public Roads in charge of the Southeastern states with offices at Montgomery, Ala.

Enlarges Water Works

The installation of a 375-horsepower Diesel engine in the water works plant of the City of Gainesville, Tex., is said to have enabled the city to cut water-lifting costs by 70 per cent. The engine, which is of an 8-cylinder, Type-JT, Cooper-Bessemer Diesel engine made by The Cooper-Bessemer Corporation, Mt. Vernon, Ohio, drives an electric generator, and although slightly underloaded, reduced the cost of pumping water from 3 cents for each thousand gallons to six mills per thousand gallons. With an increase in revenue brought about by the engine, the city contemplates the purchase of a 750-horsepower Diesel engine the latter part of the year. A distribution line for the whiteway, city hall, fire departments, parks, and some streets has already been built.

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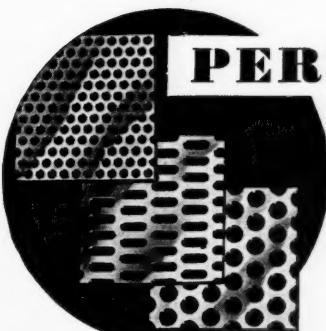
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Modern Municipal Incinerator

(Continued from page 25)

The garbage from the hoppers on floor above falls directly into furnaces through these charging gates. The gates are so constructed that there is no flame or smoke emitted in the charging operation. An elaborate signal system of lights controlled from the three floors enables operators on each floor to know what the needs of the other operators are.

Two thermocouples are located in each furnace unit, one in the combustion chamber and the other in the exhaust of hot air from preheater. Direct reading pyrometers for each furnace permit temperatures at these points to be observed. A self-recording pyrometer for each furnace is located in Superintendents office on third floor. These instruments are operated by synchronous electric clocks and register in two colors on same strip, temperature in preheater exhaust and in combustion chamber. They are also direct reading.

The basement is given over to truck storage and ash removal. The ash pits under each cell of the furnaces extend through the stoking floor and are equipped with ash gates on the ceiling

of basement. These gates are operated by pneumatic closers. Dump trucks are backed up under the gates, an attendant operates the pneumatic control and the ashes drop directly into the truck for removal.

Equipment and Material Contractors on the Municipal Incinerator at Shreveport

Air Compressors: Curtis Mfg. Co., St. Louis, Mo.
Blowers: American Blower Co., Detroit, Mich.
Brick: Reliance Clay Products Co., Dallas, Tex.
Charging Gates: Allen Sherman Hoff Co., Philadelphia, Pa.
Chimney: M. W. Kellogg Co., New York.
Roofing: Taylor Seidenbach Co., Shreveport, La.
Clamshell Bucket: Blaw-Knox Co., Pittsburgh, Pa.
Deck Plates: Mosher Steel Co., Dallas, Tex.
Ductwork: Railton Sheet Metal Wks., Dallas, Tex.
Electric Crane: Harnischfeger Sales Corp., Milwaukee, Wis.
Fire Bricks: Thermo Fire Brick Co., Sulphur Springs, Tex.
Furnace Castings: Oil City Iron Wks., Corsicana, Tex.
Gasoline and Oil: Pan American Petroleum Corp., New Orleans, La.
Glass: Binswanger Co., Shreveport, La.
Glazed Tile: Acme Brick Co., Fort Worth, Tex.
Iron and Steel Miscellaneous: Southern Ornamental Iron Co., Arlington, Tex.
Masonry Cement: Southern Cement Co., Birmingham, Ala.
Paint: American Paint & Supply Co., Dallas, Tex.
Portland Cement: Universal Atlas Cement Co., Waco, Tex.
Preheaters: The Green Fuel Economizer Co., Beacon, N. Y.
Reinforcing Steel and Steel Sash: Concrete Engineering Co., Omaha, Neb.
Refractories: General Refractories Co., Philadelphia, Pa.
Refractories: American Arch Co., New York.

Refractories: A. M. Lockett Co., New Orleans, La.

Rolling Steel Doors: Kinnear Mfg. Corp., New York.

Sand and Gravel: Meriwether Supply Co., Shreveport, La.

Structural Lumber: Kennedy & Denny Co., Inc., Shreveport, La.

Structural Steel: Austin Brothers, Dallas, Tex.

Testing Materials: Barrow Agee Testing Lab., Shreveport, La.

Thermocouples and Pyrometers: The Brown Instrument Co., Philadelphia, Pa.

Tile and Slate: Tri-State Tile & Marble Co., Shreveport, La.

Truck Scale: Howe Scale Co., Rutland, Vt.

Wall Ties: Dayton Sure Grip & Shore Co., Dayton, O.

Waterproofing: A. C. Horn Co., Houston, Tex.

Waterproofing: Master Builders Co., Cleveland, O.

Welding Gas: Linde Air Products, Shreveport, La.

All-Wheel-Drive Ford V-8 Truck

Marmon-Herrington Company, Inc., Indianapolis, Ind., announces the application of its all-wheel-drive principle of design and construction to the Ford V-8, thus introducing an all-wheel-drive vehicle to sell below \$1500. By installing specially designed driving front axle and propeller shaft, a two-speed auxiliary transmission and other necessary parts, Marmon-Herrington has developed a unit which retains intact the remainder of the Ford V-8 truck just as it comes from the factory. All installation and conversion operations are carried forward in the Marmon-Herrington factory at Indianapolis, and production has started on four models, two of which are four-wheel-drive units. The announcement follows closely the introduction by Marmon-Herrington of a new series of its regular line of trucks with many important improvements.

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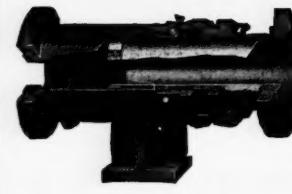
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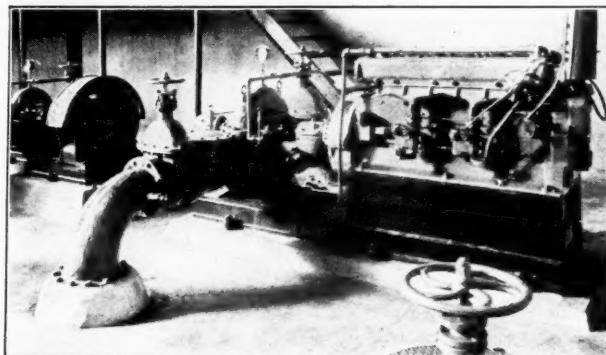
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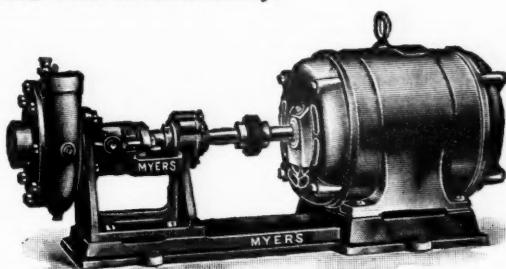
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Our new Centrifugal Pump Catalog, No. CT34, is complete with illustrations and descriptions of the different styles and sizes in which Myers Centrifugal Pumps are now built. If you have not received a copy and desire detailed information write us immediately.



THE F.E. MYERS & BRO. CO.
ASHLAND, OHIO.

Southeast Has Best Summer Business in Two Years

(Continued from page 21)

tions aside from its importance as a tourist region and producer of citrus fruits and winter trucking crops. Its business leaders and outsiders interested in the State are sensing the importance of its industrial opportunities and of the need for bringing in and establishing local industries not only to supply local needs and serve demand in surrounding states, but to take advantage of the Latin American trade so easily and quickly reached from Florida. These men are pioneers in the industrial development of the state as was Flagler and Plant in making transportation available. The du Pont and other interests are paving the way in Florida's industrial development that is sure to come.

Few realize that Florida even during the worst of the depression produced \$116,000,000 worth of manufactured goods, while the value of its agricultural output was \$100,000,000. In normal times its manufactures have reached more than \$153,000,000 and there are abundant resources in its forests, crops and

minerals to enable it to develop along sound industrial lines. With the trend toward industrial decentralization and the greater interest manifest in Florida as a year-round place to live and work never has Florida had greater opportunity for advancement, or for that matter the whole Southern region of the country.

Corporation Contributions to Community Service Agencies

(Continued from page 19)

their ability, in the face of the greatest number of handicaps ever known.

The great, outstanding misfortune of this period of attempted recovery has been the belittling and defaming of all those who represent the accomplishments of the past, and those who are still carrying the responsibility of employment and of the success of the great enterprises of the nation.

If corporations are to be relieved of their accepted responsibility to the communities which provide them opportunity to properly carry on their activities, our community service work which embodies the greatest and most practical plan for

providing and spreading Social Justice ever conceived, will be destroyed to the everlasting discredit and inestimable loss of the nation.

Moving a Mountain a Mile

Moving a mountain a mile is a job being done at Grand Coulee, Washington, where approximately 12,000,000 cubic yards of earth from the excavations for the Grand Coulee Dam are being handled at the rate of 3000 cubic yards an hour. The dirt is carried on giant conveyors, made by the Jeffrey Manufacturing Company, Columbus, Ohio, from the dam excavation to Rattlesnake Gulch, a mile and a quarter away. A period of 12 minutes is required for operations from mountain-side to steam shovel, to caterpillar truck, to feeder, to belt, to Rattlesnake dump. The task of disposing of the excavated dirt and the filling of the huge coffer-dams is accomplished by seven large Heavy Duty Feeders, a self-propelled distributing Stacker and 2 miles of Jeffrey 60-inch Belt Conveyors, making the largest conveyor system ever used on a construction job. More than ten miles of Electric Weld Pipe, a product of Republic Steel Corporation, Youngstown, Ohio, were used in the manufacture of the idler rolls of the conveyor system.

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(HOT DIPPED PROCESS)

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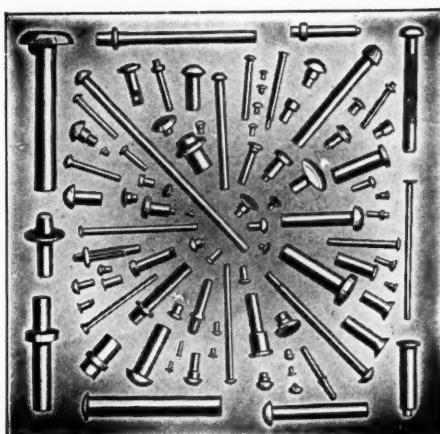
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Executives who sell products to Industrial America:**

The 1935 convention of the National Industrial Advertisers Association will bring together in a single three day conference, the answers to many of the problems now confronting the manufacturer covering the advertising, merchandising and sale of industrial products.

The program, carefully planned and balanced by men who have devoted their careers to advertising and sales promotion, is practical, all embracing and highly instructive. It is advanced in the sense of being fully up-to-date but has due regard for established fundamentals.

This program has been created for the executive who is advertising minded and uses advertising as a useful tool, as well as for the specialist who is highly skilled in his profession. Every one who attends this conference conscientiously will carry ideas away which he can profitably employ in his business . . . It is recommended very seriously to all thinking executives.

The conference will be held in Pittsburgh, Pa., September 18th, 19th and 20th at the William Penn Hotel. It is suggested that advance reservations be made through the secretary of the Industrial Advertising Council, P.O. Box 1198, Pittsburgh, Pa., to insure satisfactory accommodations.

Yours sincerely

NATIONAL INDUSTRIAL ADVERTISERS ASSN.

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63

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Gregory Hi-Grade Rebuilt Electric Motor Bargains

A. C. MOTORS 3-Phase—60-Cycle

HP	Make	Type	Speed
250	Westinghouse	CX	580
150	General	form K	600
75	General	KT	1200
50	Crocker Wh.	Q	570
25	Allis Chalmers	AN	1150

SYNCHRONOUS MOTORS 3-Phase—60-Cycle

HP	Make	Type	Speed
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GASOLINE ENGINE DRIVEN ARC WELDER
200 Amp. Gen. Elec., compound intp. arc welding gen., with four cylinder engine, control panels, stabilizing coil, resistance, cable and electrode holder.

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150 KW. Gen. Elec. Curtis, D. C.
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These Engines are in the City of New Albany, Miss. Municipal Plant, which was discontinued when TVA hooked on to the town.

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L. C. Parks, for the past nine years Cumberland district manager of The Tennessee Electric Power Company, resigned July 1 to become vice president and general manager of Gulf Power Company, with headquarters at Pensacola, Fla.

Succeeding his brother, J. J. Brown, who continues as chairman of the board of directors, Harry S. Brown has been elected president of Foster Wheeler Corporation, of New York City. Mr. Brown, a native of Texas has served as vice president in charge of sales and as a director of the Foster Wheeler Corporation since its organization in 1927.

Walter F. Jahncke, president of the Southern Builders' Supply Association, who has served the Norwegian Government since 1924 as vice consul for the State of Louisiana, has been promoted to the consulship.

PROPOSALS

Bids Aug. 16, 1935.

Two Wells Complete

ADVERTISEMENT FOR PROPOSALS

1. Sealed proposals will be received by the Board of Supervisors, Henrico County, Virginia, at the office of the County Manager, Henrico County Court House, 22nd and Main Sts., Richmond, Va., not later than 12 o'clock Noon, Friday, August 16th, 1935, and there publicly opened and read immediately thereafter, for the construction of the following project:

2. Construct and test, COMPLETE, with casings, strainers, etc., two wells at Highland Springs, Virginia, according to plans and specifications on file at the office of the Consulting Engineer, 207 Builders' Exchange Bldg., Richmond, Va., and the office of the County Manager, 22nd and Main Sts., Richmond, Va.

3. Said plans, specifications and proposals may be obtained at the office of R. Stuart Royer, Consulting Engineer, 207 Builders' Exchange Bldg., Richmond, Va., upon the deposit of Ten Dollars (\$10.00) of which Seven Fifty (\$7.50) will be refunded upon return of same in good condition within two (2) days after opening of bids.

4. All proposals shall be on the detached standard form furnished by the Consulting Engineer and sealed and plainly marked. All bids must be accompanied by a certified check or acceptable bidders' bond in the amount of 5% made payable to the Board of Supervisors, Henrico County, Virginia. Said checks or bonds will be returned to the unsuccessful bidders within three days after award of contract. When the award is deferred for a period of time longer than ten (10) days, after opening of the proposals, all guarantees, except those of the three (3) lowest bidders will be returned. Should no award be made within thirty (30) days, all proposals will be rejected and all guarantees, unless otherwise agreed to, returned.

5. The successful bidder shall furnish a bond in the amount of the contract price, issued by a responsible surety approved by the Board of Supervisors and by the State Engineer of Virginia for P.W.A. Should the successful bidder fail to furnish said bond and execute the contract within ten (10) days after notice of acceptance of his proposal, the 5% bid check or bidders' bond will be forfeited to the Board of Supervisors, Henrico County, as liquidated damages. An additional labor bond equal to the estimated maximum payroll for any one month during construction will be required. Public Liability and Workmen's Compensation Insurance is required in an amount satisfactory to the State Engineer.

6. This Project, Docket No. 5324, is being financed by the Federal Emergency Administration of Public Works. All the rules and regulations established by the President and adopted by the Administrator will apply and have to be complied with. Attention is called to the fact that not less than the minimum wage rates prescribed by the Federal Emergency Administration of Public Works must be paid on this project.

7. The Board of Supervisors of Henrico County, Virginia, reserves the right to reject any and/or all bids.

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Youngstown Sheet & Tube Co. 6

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Immediate shipment of steel and allied products including Bars, Structural, Sheets, Shafting, Alloy Steel, Stainless Steel, Welding Rod, Boiler Tubes, Bolts, Nails, Brass, Copper, Babbitt Metal, Tools, etc. Write for Stock List. Joseph T. Ryerson & Son, Inc., Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City.

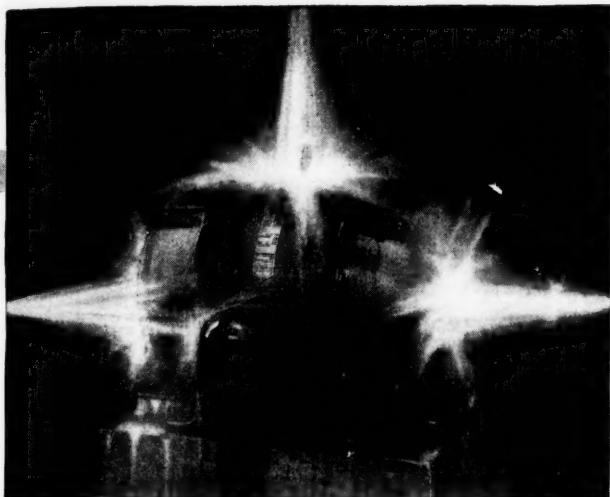
CANNING MACHINERY For Fruits, Vegetables, Seafoods, etc.

WE ARE MANUFACTURERS

— WRITE FOR CATALOG —

A. K. ROBINS & COMPANY, Inc.
BALTIMORE, MD.

WE BUILT IT FIRST ON *Paper*



Field research disclosed the need for a truly splash-proof motor—one that wasn't a mere open-frame motor with an improvised sheet cover. The many makeshifts they found in use were seldom indeed invulnerable to moisture, corrosion or the particles of abrasive dust that are found in most chemical and industrial operations.

So our designers lighted their pipes, sharpened pencils and went to work. From their designs, from the suggestions and help of the men who work with tough motor services, they built a real two-fisted splash-proof motor on paper. A motor that would operate in a downpour or a Kansas dust storm. A motor that could "take it."

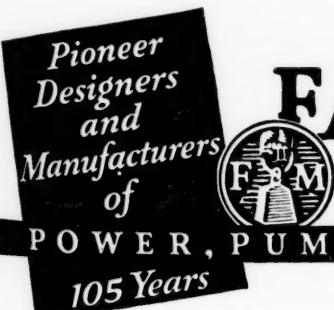
Then our shops went to work and built it.

To the simple totally inclosed cast frame with special heavy solid cast brackets, they added

perforated baffles in the bottom air ducts. A water deflector was placed on the shaft. Watertight gaskets were fitted to conduit openings to seal out water. The stator windings were given a new type of moisture-resisting insulation. Rotor windings were solid pressure-cast for added strength. Stator coils were welded instead of soldered for greater electrical efficiency. Then they added double row, self-aligning ball bearings in cartridge-type housings—the "highest priced bearings in the world."

The result—a truly splash-proof motor that runs without "hot spots." A motor built with the same superior engineering, craftsmanship and care that characterize all motors bearing the F-M seal.

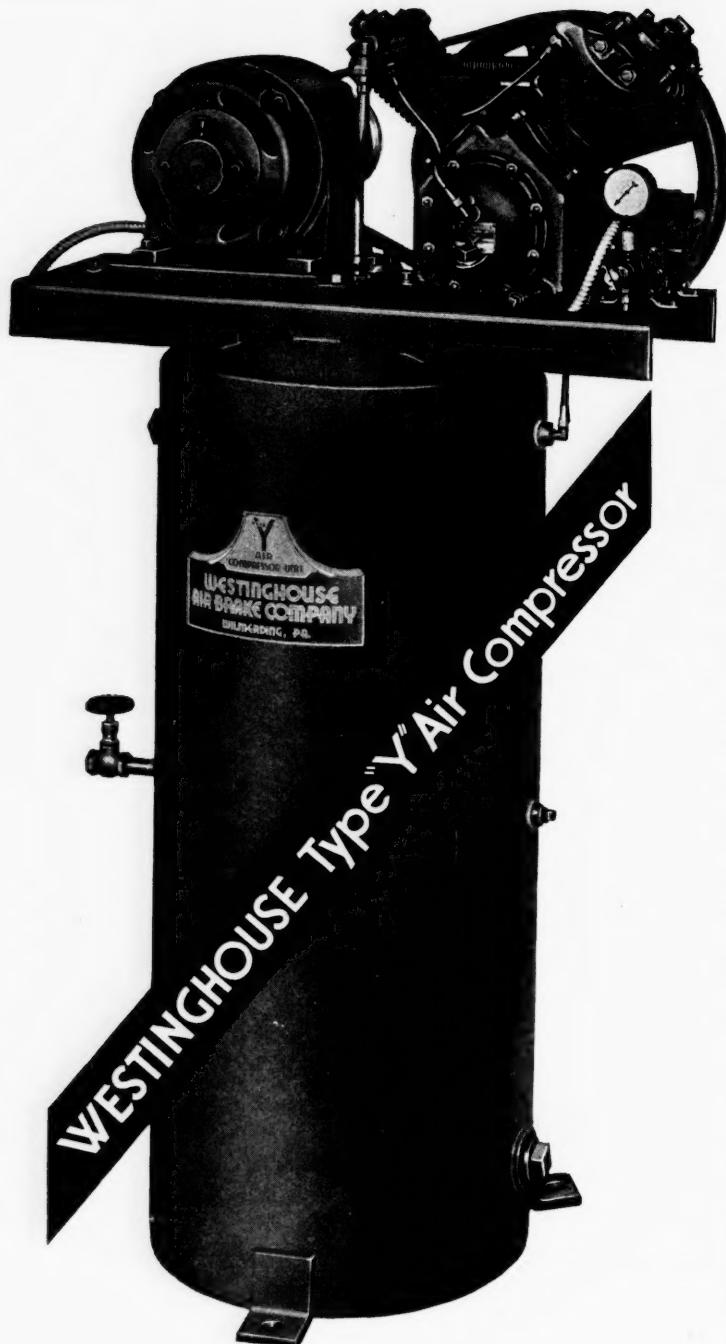
Before you buy, see the Fairbanks-Morse Splash-Proof Motor and see how much more it offers for the money. Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill. 32 branches at your service throughout the United States.



FAIRBANKS-MORSE MOTORS

POWER, PUMPING AND WEIGHING EQUIPMENT

6413—EA60.3



The Type "Y" Air Compressor is manufactured in sizes ranging from 3.6 to 33 cu. ft. displacement and in various mountings for any requirement. Besides its controlled lubricating system interlocked with positive unloader, this compressor has other noteworthy features that commend it for use where a reliable and economical source of compressed air of small volume is required . . . Ask for Publication 9083.

No OIL.. No AIR » » »

If the oil supply in a Westinghouse Type "Y" Compressor is inadequate, no air is delivered, because the lubricating system is interlocked with the unloader.

A small plunger pump creates an oil pressure that forces lubrication to every vital part, and also operates the unloading piston. While the motor is attaining speed, *and when the oil level is low*, this oil pressure is insufficient to operate the unloading piston, and therefore the compressor idles.

If no air is being produced after the normal starting time, or the compressor automatically unloads while running, this impels immediate investigation and correction of the trouble.

Here is a valuable protection feature—distinctive with this compressor.

**WESTINGHOUSE
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